Issue 45

# PS

1956 Series

# THE PREVENTIVE MAINTENANCE MONTHLY

You own it

# WEDDING NOTICES

The Ordnance Corps of the U.S. Army is happy to announce the marriage today of one of its vehicles to GI driver. Maid of Honor is Connie Rodd, who first introduced the couple at a motor pool.

Next time someone comes up to you and asks—"Whose vehicle is that you're driving?"—don't beat around the bush. Come right out and tell him it's yours—AR 750-5 (23 Jan 53) says so.

Para 9 of this AR makes operators and crew chiefs personally responsible for their vehicles; it makes squad, section and platoon leaders responsible for the supervision of vehicles in their command; and it makes unit and organization commanders responsible for seeing that the vehicles in their command are properly cared for and used.

But, the main responsibility lies with you—the driver or crew chief. So, as long as you're the one responsible for everything that happens to that vehicle, you can just go ahead and assume that it's yours—every nut and bolt of it. Please treat it as such—just for me—huh?

*Connie*


## PS MAGAZINE

**Issue No. 45** **1956 Series**

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PS Magazine wants your ideas and contributions, and is glad to answer your questions. Just write to: **Sgt Half-Mast, PS Magazine, Raritan Arsenal, Metuchen, New Jersey.** Names and addresses are kept in confidence.


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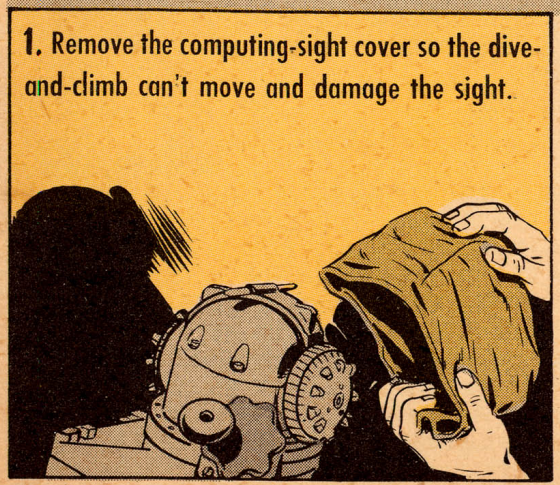
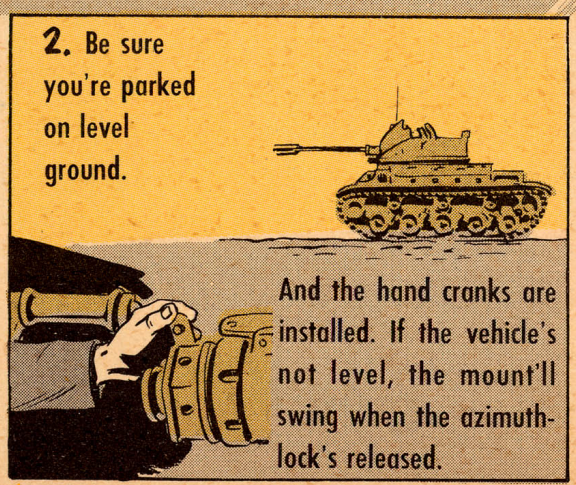
That's right. You'll never do much fancy ridin' and shootin' if you don't know your mount—as any of you broncbusters know.

So, gather round and get the right cadence for running that M4E1 mount on the M42 "Duster"—your twin 40-mm antiaircraft job.

'Course, do the regular automotive checks even before climbing up on the gun mount. Put fuel selector valve on BOTH ON. Go over your engine, transmission, Li'l Joe, batteries and air cleaners. When all regular before-operation maintenance is taken care of, you're set to hop into the mount and get ready to unlimber those twin 40's in power operation.

Do it this way, by these numbers, and only this way. It'll save life and limbs and statements of charges. Good idea to memorize the steps shown in the following drawings:



# KNOW YOUR MOUNT

That's right. You'll never do much fancy ridin' and shootin' if you don't know your mount—as any of you broncbusters know.

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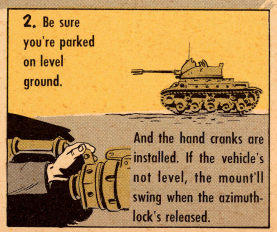
Do it this way, by these numbers, and only this way. It'll save life and limbs and statements of charges. Good idea to memorize the steps shown in the following drawings:

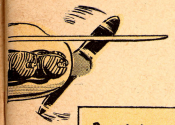
**1.** Remove the computing-sight cover so the dive-and-climb can't move and damage the sight.

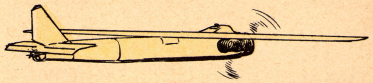


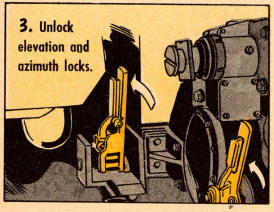
**2.** Be sure you're parked on level ground.

And the hand cranks are installed. If the vehicle's not level, the mount'll swing when the azimuth-lock's released.

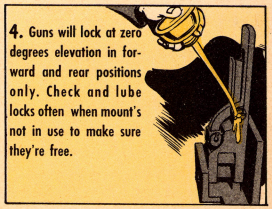




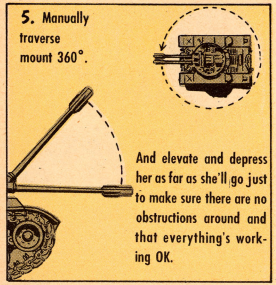




**3.** Unlock elevation and azimuth locks.

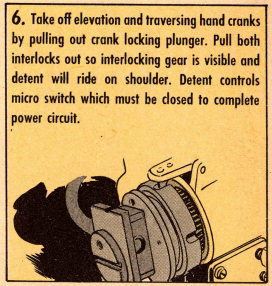


**4.** Guns will lock at zero degrees elevation in forward and rear positions only. Check and lube locks often when mount's not in use to make sure they're free.

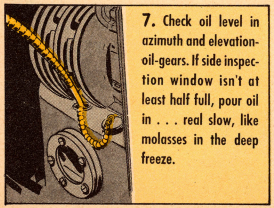


**5.** Manually traverse mount 360°.

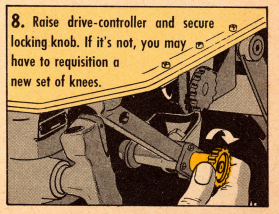
And elevate and depress her as far as she'll go just to make sure there are no obstructions around and that everything's working OK.



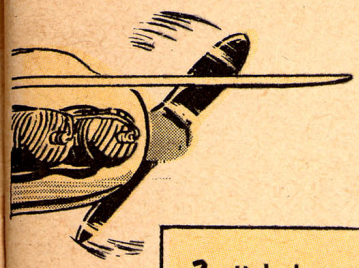
**6.** Take off elevation and traversing hand cranks by pulling out crank locking plunger. Pull both interlocks out so interlocking gear is visible and detent will ride on shoulder. Detent controls micro switch which must be closed to complete power circuit.

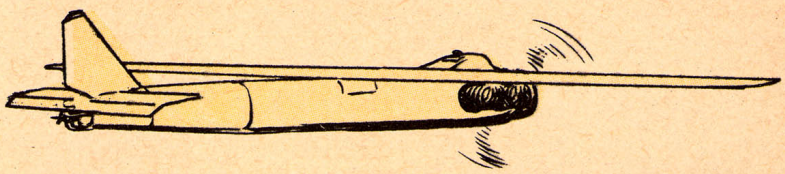


**7.** Check oil level in azimuth and elevation-oil-gears. If side inspection window isn't at least half full, pour oil in . . . real slow, like molasses in the deep freeze.



**8.** Raise drive-controller and secure locking knob. If it's not, you may have to requisition a new set of knees.





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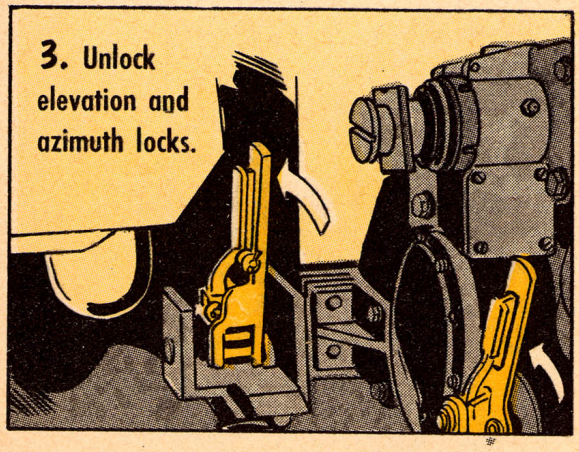

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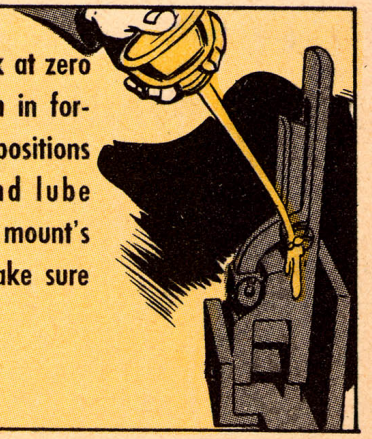

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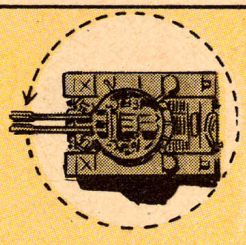

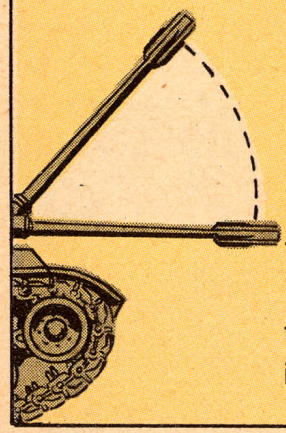

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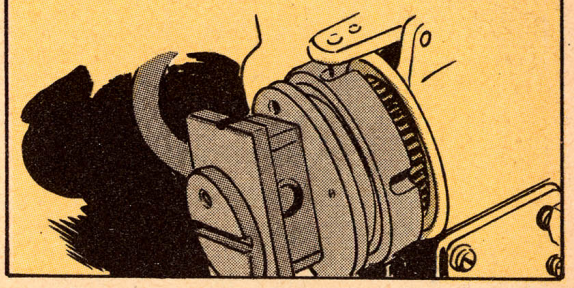

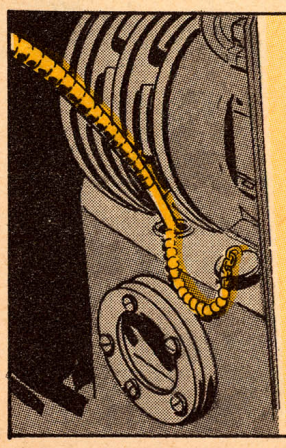

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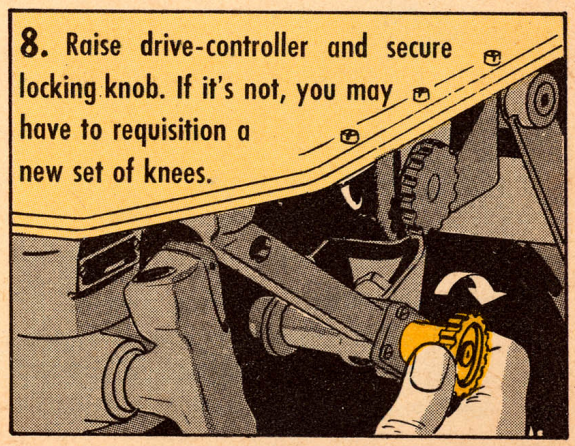
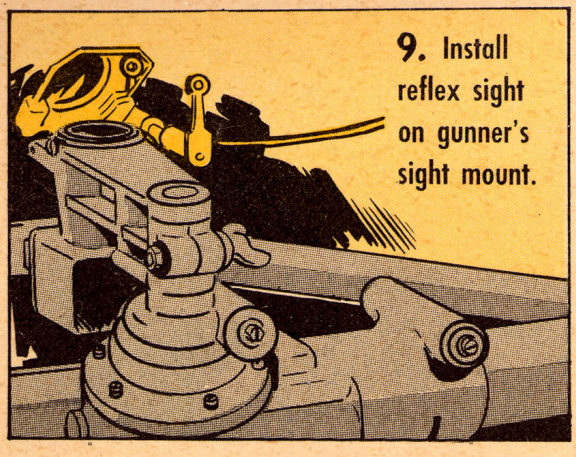
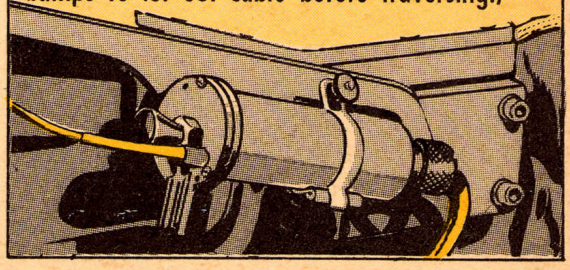
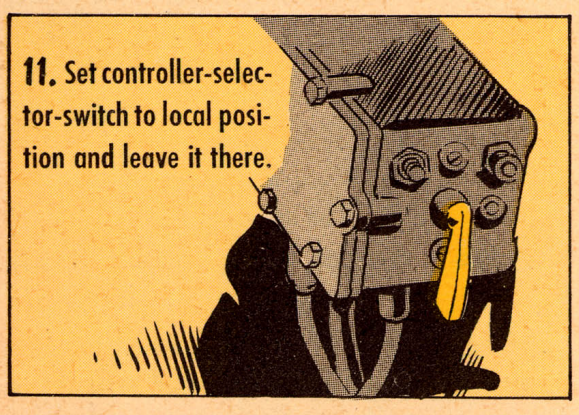




**9.** Install reflex sight on gunner's sight mount.

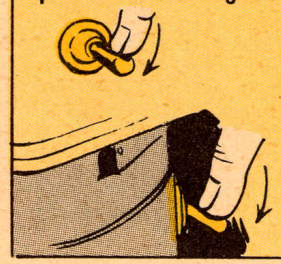
**10.** Manually pull sight light slowly to left to see if there's enough play in sight light cable. (On a new vehicle you may have to loosen a couple of clamps to let out cable before traversing.)



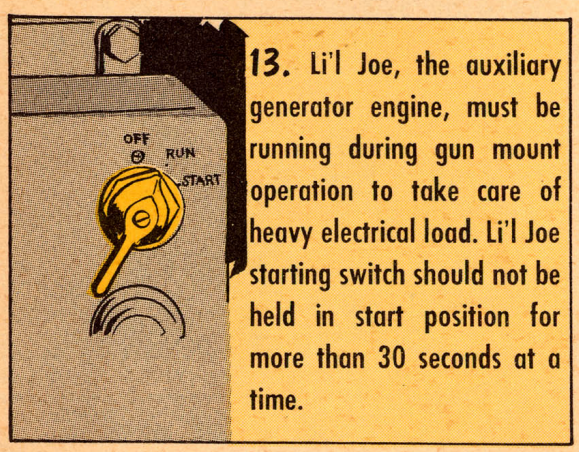


**11.** Set controller-selector-switch to local position and leave it there.

**12.** Now turn on master relay-switch, unless you've been traveling and it's already on. Turn up rheostat for sight-light brightness.

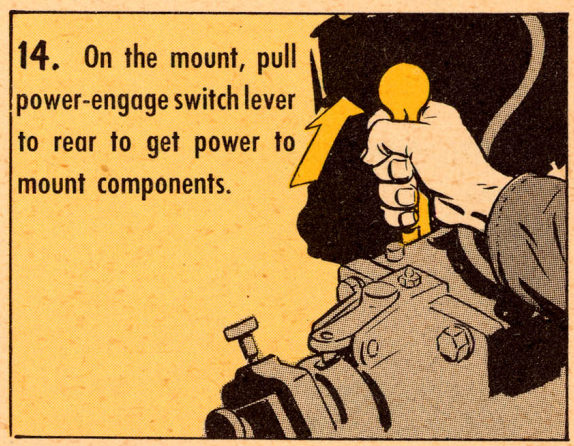


**MAKE SURE RATE SWITCH IS OFF**



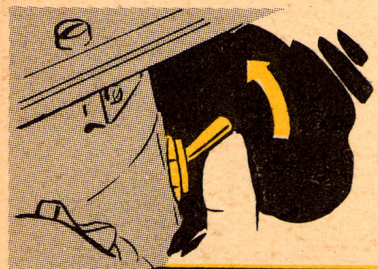

**13.** Li'l Joe, the auxiliary generator engine, must be running during gun mount operation to take care of heavy electrical load. Li'l Joe starting switch should not be held in start position for more than 30 seconds at a time.

**14.** On the mount, pull power-engage switch lever to rear to get power to mount components.



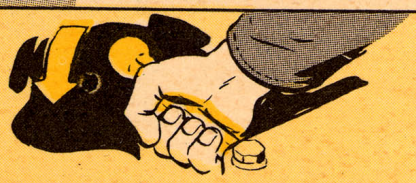
Now here's where you've got to be careful, because that switch lever has caused Ordnance more work than a thousand gremlins. Some guys have the habit of disengaging that switch lever, then engaging her again when the mount's still moving. Naturally, this grinds out the slewing clutches in the two oil gears real sudden-like—and your vehicle goes back to Ordnance. When you're firing, keep the switch lever engaged all the time.

**Never, never throw her in gear when the mount's moving, or when oil gears are not completely stopped.**

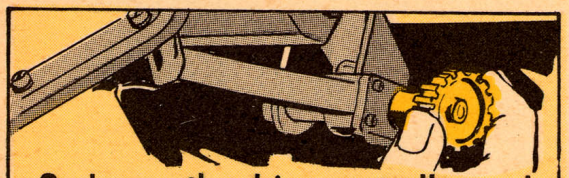


If you've done everything right so far, flip on the rate switch and she's ready to roll. Be sure the rate switch is the last thing you turn on. If it's on and you hit the control handles as you sit down in your seat or as you move around, the mount'll be whipped around like a dart in a wind storm.

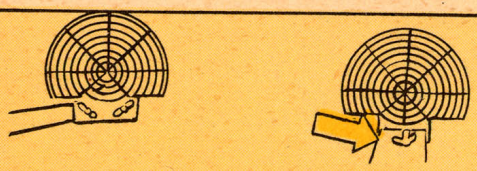
**For manual operation, you've got only five steps:**



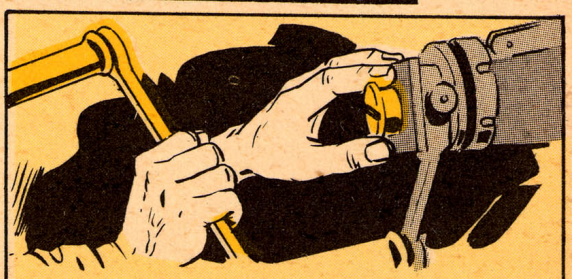
**1. Push the lever switch to OFF position.**



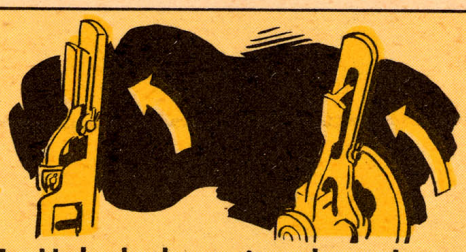
**2. Lower the drive-controller and secure locking-knob.**



**3. Put on the ring sights, making sure the wing-nuts are tight.**



**4. Install the azimuth and elevation hand-cranks, and push both interlocks in to engage gears.**

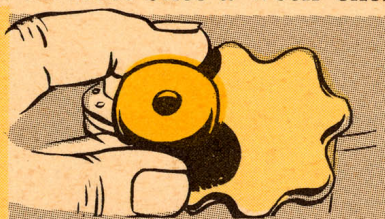


**5. Unlock the azimuth and elevation-locks, and she's ready for manual operation.**

You've also got to keep your preventive maintenance on the ball in other ways with the "Duster's" mount. Keep the mount free of dirt and moisture.

Remember that the gun mount, recoil cylinders, and equilibrators need exercising to keep in shape. At least once a week exercise the computing sight

By setting the speed knobs at 700-MPH

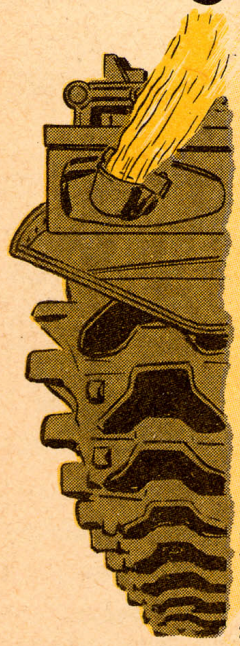


Rotating the direction of flight knob manually

And turning the dive-and-climb arrow to its maximum in both positions

Don't tamper with the computing sight or try to open it for service or lubrication. She's too delicate for that. Just keep her exercised.

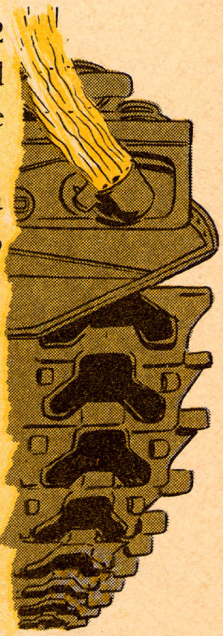
# SCOTCH THAT SCORCH!



Been doing any trailer towing with your M42 twin-40? Then you know how your towed load gets stuck in the line-o-fire of those main engine exhausts. Right?

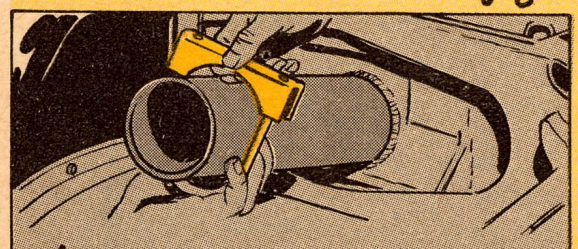
Well, the idea people have been cooking up a deal to prevent the cooking of tender skins, ammo trailers, or anything else towed by the "Duster." It's a modification to fit out the tail pipes with twin deflectors which shoot the scorchy blasts **up** instead of **back.**

To get your "Duster" fixed up with the deflectors, see your Ordnance support unit. They'll have: Kit, modification, Ord Stock No. G253-5702092, containing two deflectors, two U-bolts and two clamps.

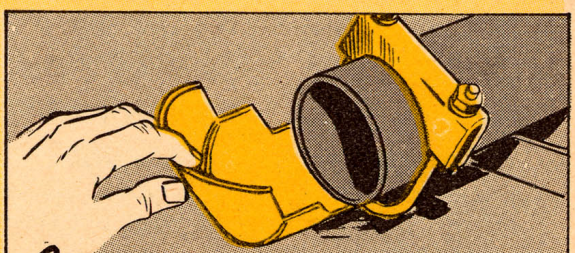


Besides the kit, a few other items are needed for the job. These are to be had through regular supply channels: 4 Nuts, 5/16 18NC-2, Ord Stock No. H001-4167541; 4 Washers, lock, 5/16 in H001-7023711; 4 Washers, plain, 3/8 in H001-0446363.

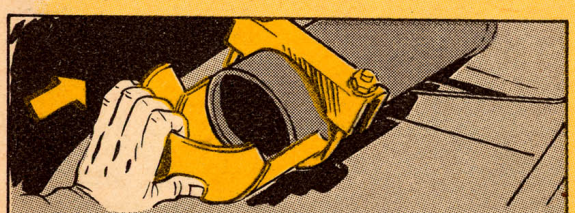
## *They go on like this:*



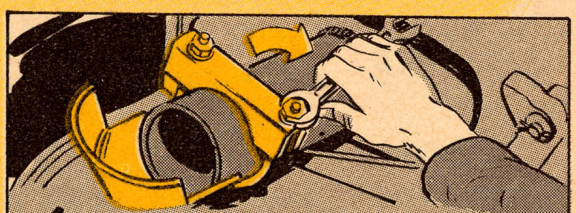
**1.** Assemble the U-bolt, clamp, washers and nuts (loose-like) and slide 'em on over the tail pipe.



**2.** With the clamp up—and about 45 degrees toward the center of the vehicle—install the deflector between the U-bolt and the tail pipe.



**3.** Shove the deflector forward on the tail pipe 1 7/8 inches, with the beveled end up and at a 45-degree angle toward the center of the vehicle.



**4.** Now all y'gotta do to secure the works is tighten the nuts on the U-bolt—making sure you've got it well over the underside of the deflector, so it'll hold tight.

# M48 TANK GENERATOR CIRCUITS

Here's one to watch if you're working around the wiring circuits of your M48 tank.

The generator has two controlling circuits —the field circuit and the generator equalizing circuit, sometimes called the paralleling circuit. The field circuit is No. 1, and the equalizing circuit is No. 478. OK—as long as these are hooked up right you've got no problem.

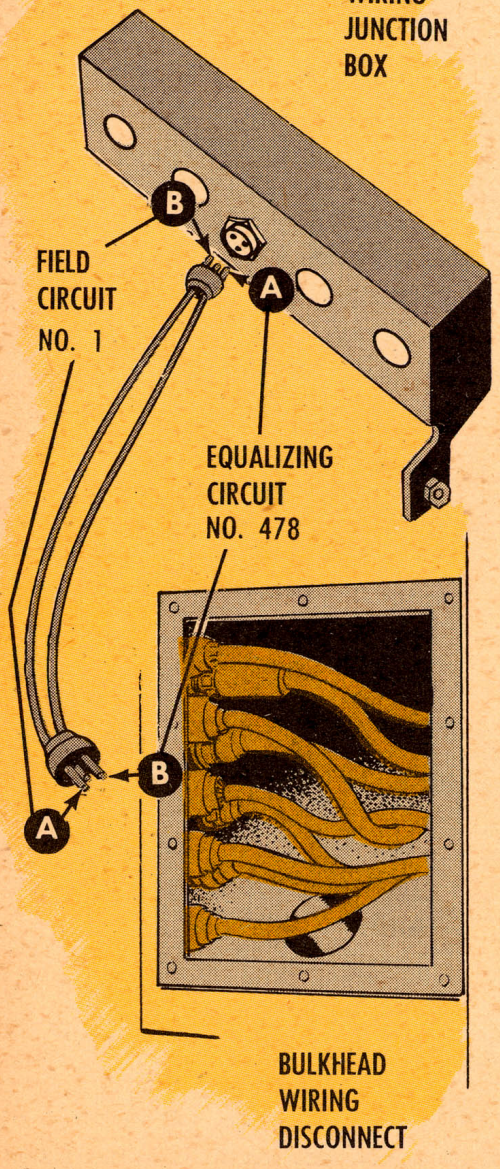
These leads plug into the little three-wire plug in the center of your engine wiring junction box. The field circuit, No. 1, is on pin **B** of the plug, the equalizing circuit, No. 478, is on pin **A** of the plug, and pin **C** of the plug is blank.

Now, watch this: Back at the bulkhead wiring disconnect, these circuits also come through a three-wire plug. **But** they use different pins. The field circuit uses pin **A** and the equalizing circuit uses pin **B**.

As long as you leave this harness alone, no harm is done. But sometimes you may have to make up a new harness, or replace a plug.

This is quite OK, unless they go ahead and connect pin **A** at one plug to pin **A** on the other. This sounds logical, but it's not right. If you install a lead hooked up **A** to **A** and **B** to **B**—by yimminey, you got troubles. Such as a burned-out generator and/or regulators.

This is more confusin' than amusin'—but look at the right-hand side of the diagram, Fig. 109 in TM 9-7012 and you'll see. Just follow circuits 1 and 478 from the bulkhead wiring disconnect line out to the right, and you'll see 'em jump over.



## Save That Bogie

# SUSPENSION WHEEL DEAL

Funny thing about track suspension wheels. Lotta people seem to think the rubber tread on the wheel is about the only thing that needs to be watched for wear.

T'ain't so. Those wheel metal disks have flange area (Fig 1) that's constantly rubbed, scraped and scoured by your track center-guides. The flange wears down eventually; and, if it wears too far, the wheel is shot—for keeps.

However, by keeping an eye on this wear, and knowing what to look for, you can turn a worn wheel in for rebuild while it's still in shape to salvage.

The simplest way to do this is take a six-inch scale and measure the width of the flange wear area (Fig 2). Since the original flange surface is rounded, the width of the flat wear area will tell —indirectly—how much of the flange's thickness has been worn away (Fig 3).

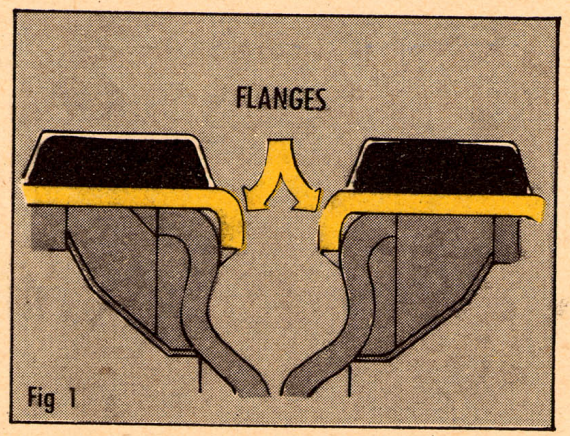


Fig 1

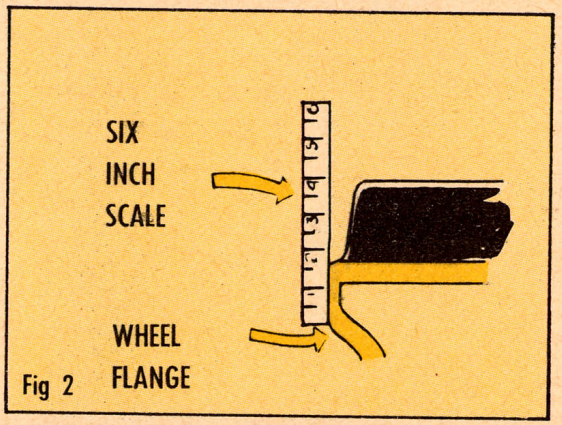


Fig 2

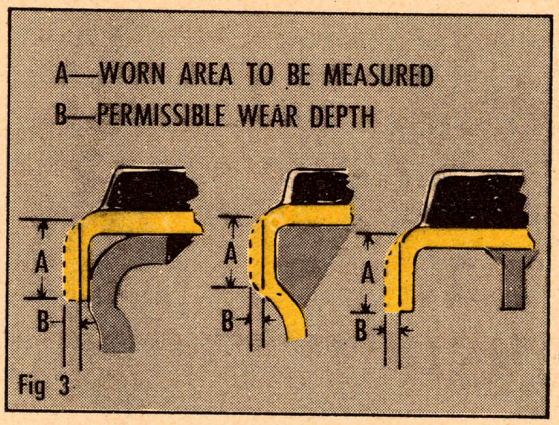


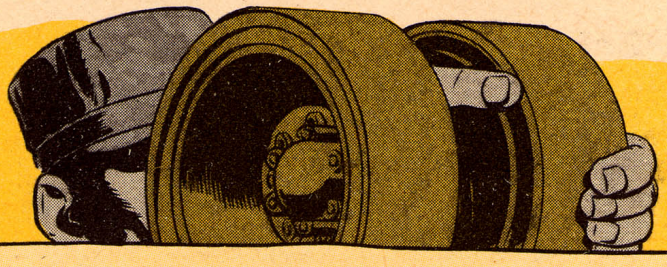
Fig 3

Now—if y'know how wide the wear area should be when the wheel's ready for turn-in, you're set to save those bogies (and support rollers, idlers, etc.)

So rest your best eye on the flange-wear chart. The first three columns identify your wheels (disks). The fourth column tells you at what point (wear area width) the wheel should be turned in.

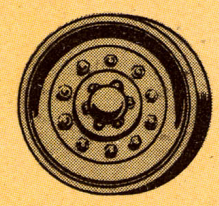
Do it then and you save the wheel —and a sizeable chunk of highly desirable dough. Let it wear further and the whole works goes down the drain.

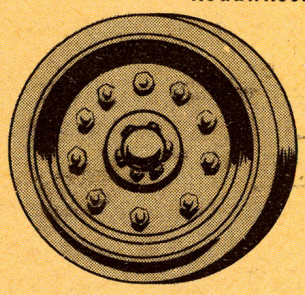
You'll see this and a lot of additional dope on track and other suspension items in the new revision of TB Ord 562.

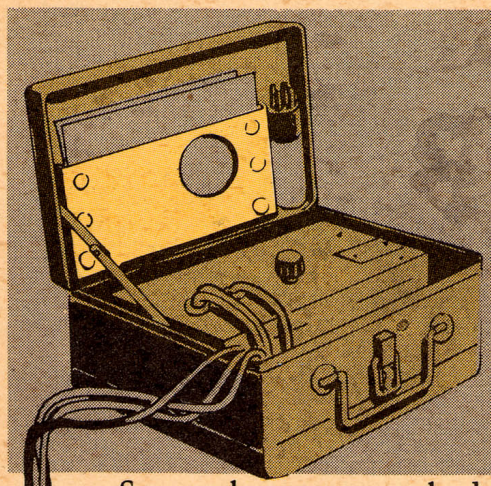


# FLANGE WEAR CHART

| DISK (ORD STOCK NO.) | USED AS | ON THESE VEHICLES | MAX. WIDTH OF WEAR SURFACE |
|---|---|---|---|
| G163-5621440 | Support roller | M18 Carriage (76-mm gun) | 7/8 in. |
| G200-5636637 | Support roller | M59 AIV, M75 AIV, M19A1 Carriage, M37 Carriage, M41 Carriage, M42 (SP), Gun (twin 40-mm gun), M44 Howitzer (SP), T98E1 Howitzer (SP), M24 Tank, M41 Tank, M8E2 Tractor (cargo) | 1 1/4 in. |
| G104-5635849 | Support roller | T97 Gun (SP), T108 Howitzer, M4 Tanks, M26 Tank, M46 Tank, M47 Tank, M48 Tank, T43 Tank | 15/16 in. |
| G104-5635861 | Rear idler | M40 Carriage, M4 Tank | 19/32 in. |
| G104-5635844 | Roadwheel | M40 Carriage, M4 Tank | 1 1/8 in. |
| G251-6576489 | Roadwheel | M59 AIV, M75 AIV, T8E4 Bulldozer, M19A1 Carriage, M37 Carriage, M41 Carriage, M42 Gun (twin 40-mm gun), M44 Howitzer (SP), T98E1 Howitzer (SP), M24 Tank, M41 Tank, M8E2 Tractor (cargo) | 1 11/16 in. |
| G163-5621441 | Roadwheel | M18 Carriage, M39 Vehicle (utility) | 1 13/32 in. |
| G256-7013976 | Roadwheel | T97 Gun (SP), T108 Howitzer, M26 Tank, M46 Tank, M47 Tank, M48 Tank, T43 Tank | 1 1/4 in. |







DON'T FLIP YOUR LID OR TAKE TO FLIGHT... JUST LEARN TO USE...

# YOUR TIMING LIGHT

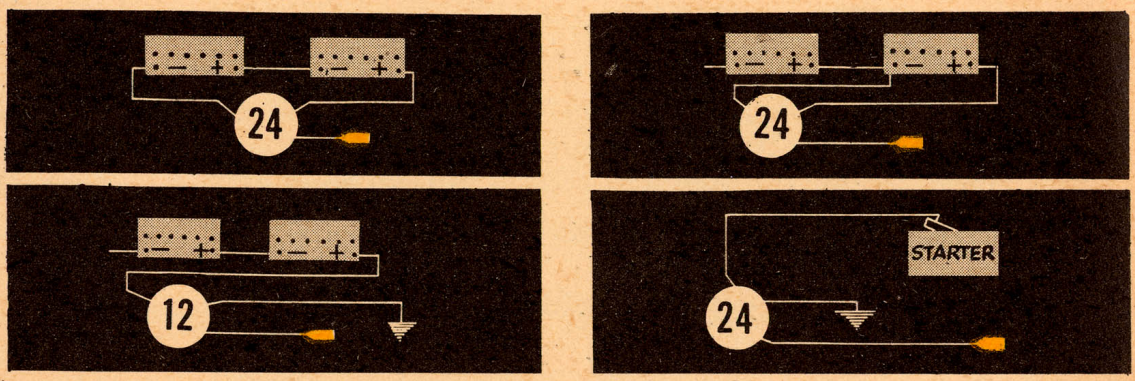
Seems that not everybody is plumb sure just how to use that new Power Timing Light, FSN 6625-378-2073 that's showing up in the second echelon tool sets.

If you're used to the old neon timing lights (Ord Stock No 41-L-1440) or the pistol-shaped commercial timing lights, you may get quite a surprise when you first meet the new one. Relax, you don't have to take that steel box down into the engine room with you. The lamp itself isn't any larger than the old neon type and isn't as big as the commercial style. The box you can leave on the fender or even on a work stand.

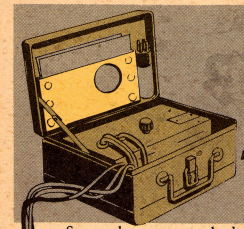
But you'll find that this new light is many times brighter than the neon lights were. Also, since the principal source of power is the vehicle battery, it has no tendency to cause the engine to miss.

In the box is a selector switch which has positions for OFF, 24 volts, 12 volts and 6 volts, in that order. You set it for whichever voltage you are using, according to the vehicle and **according to whether you're using one or both batteries.** (You see, you can use only the under-hood battery on the M38A1, or only one of the M135/M211 batteries if you choose.)

## IT WORKS LIKE THIS—




Two battery leads, a high tension lead, and the lamp leads all come out of the box. You hook the battery leads to the vehicle battery,



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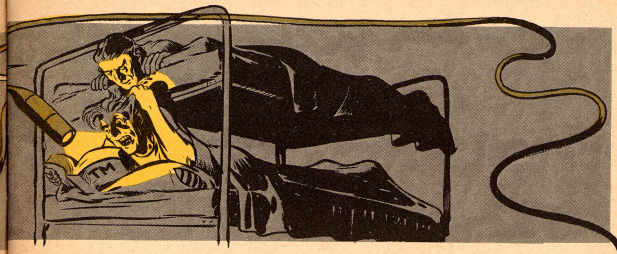


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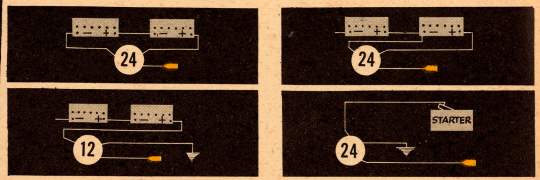



Two battery leads, a high tension lead, and the lamp leads all come out of the box. You hook the battery leads to the vehicle battery, either directly or to the starter terminal, whichever is most convenient.

The high-tension lead goes directly to number one spark plug on non-shielded ignition systems, or goes to the spark plug adapter from the Adapter Kit (Ord Stock No. 17-A-3150) which you install at number one plug on the shielded or waterproof vehicles.

Now, here's what takes place: The battery current feeds a power-supply unit in the box which is adjusted to **almost** light the gas-tube lamp, but not quite.

Then, when the number one spark plug fires, a small portion of the high tension current from the ignitor comes up the high-tension lead to a little wire or grid which is wrapped around the outside of the lamp. This provides a jolt which upsets the balance, and the lamp lights. It makes the high tension current act 'sorta like the pull on a lanyard fires a howitzer.

This very slight draw on the ignition current is what gets you away from any tendency for the plug to miss, as they sometimes do with neon lights.

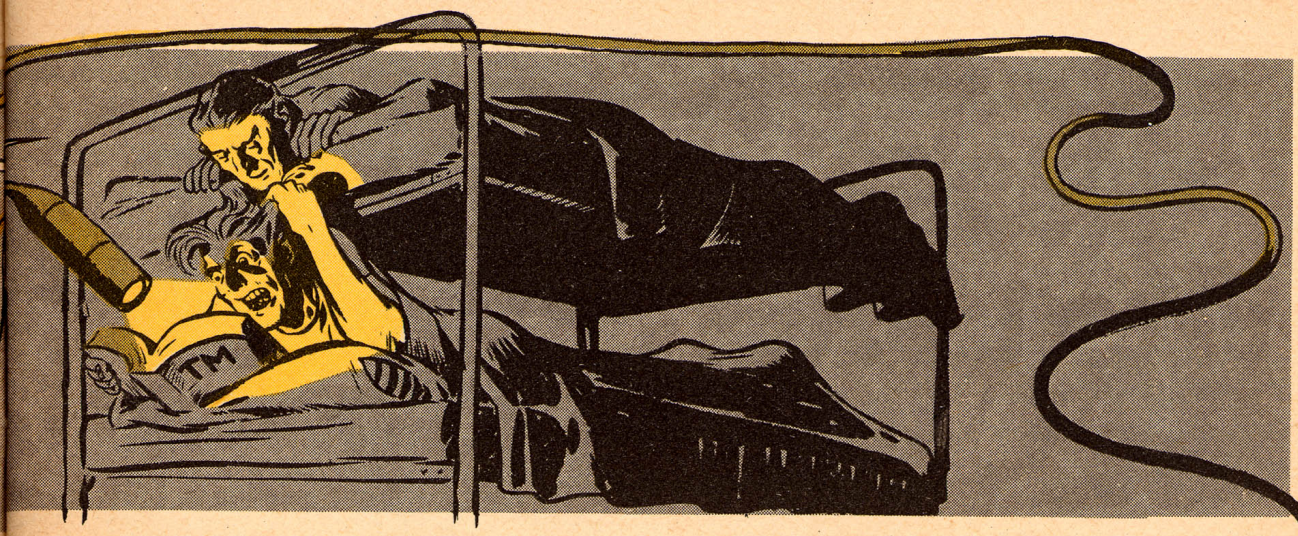
Note: When hooking up the battery leads, the **red** covered clip goes to the **positive** terminal. If you hook 'em up backwards, you have a tendency to double flashes at the light, which can upset your timing accuracy, and in time you'll hurt the power unit.

So here's how you use the light. First refer to your vehicle TM for the location of the timing marks on your particular vehicle, and for the timing instructions.

1. Then tickle your starter until the marks come in sight and clean 'em with a rag.

2. Now connect the timing light, being sure to get the red battery lead on the positive post.

3. Ground the black battery lead wherever is handy.



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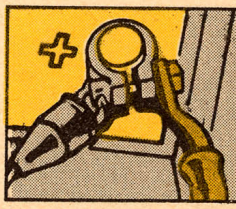

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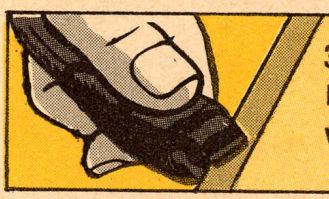
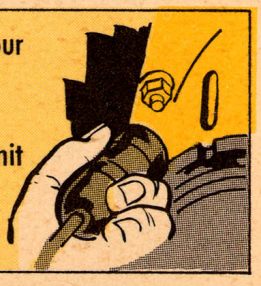


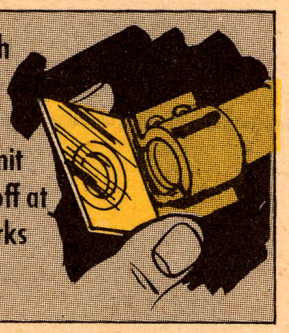
3. Ground the black battery lead wherever is handy.

4. Now you install the spark plug adapter, if needed, on number one spark plug and connect the blue high-tension lead to it (directly to the spark plug if unshielded.)

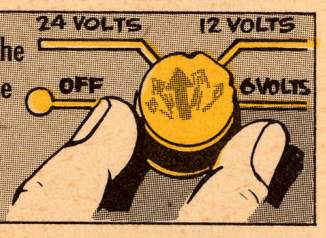
5. Now, before starting your engine, take a dry run on where you're going to stand and hold the lamp unit to see the timing marks clearly.



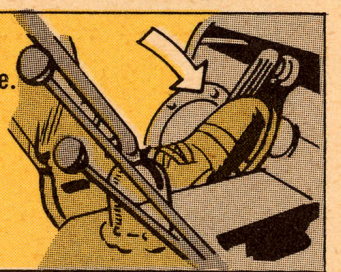
6. If your engine is such that you need it, a little mirror is provided which hooks onto the lamp unit and will direct the flash off at an angle to light the marks up more clearly.



7. Be sure you set the selector switch for the voltage you're using to power the light.

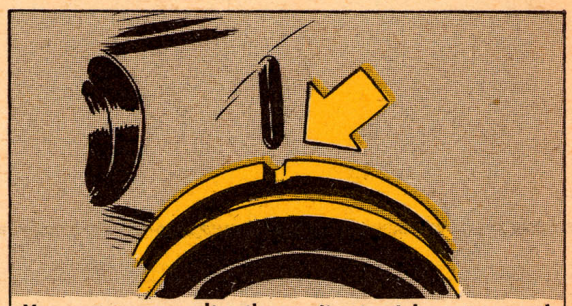



8. Start your engine. Set it at idle, and turn on the timing light.

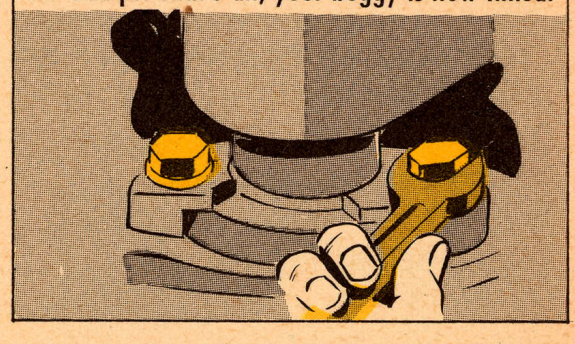


There's a circuit breaker inside to protect the mechanism, but continuous operation, say on 24 volts with the unit set for 6 volts, will eventually foul it up.

Now your lamp unit will be flashing on and off with a bright blue-white light.When you direct this light at your timing marks, the flashes will have what is called a stroboscopic effect. This is a 6-bit way to say that the fan pulley will appear to stand still, so you can see both the fixed timing mark and the one on the pulley.



You rotate your distributor (ignitor) housing until the two marks come together, and then tighten the clamps. That's all, your buggy is now timed.



But, since this light is much faster than the old type, there is one other check you can make at this time. After determining that the marks appear to be together at idle speed, rev up your engine briefly to about 2000-RPM.

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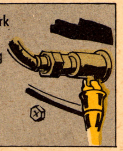

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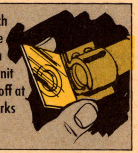

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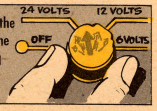


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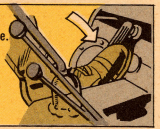

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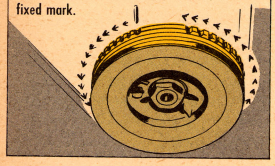
You rotate your distributor (ignitor) housing until the two marks come together, and then tighten the clamps. That's all, your buggy is now timed.

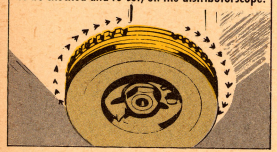
But, since this light is much faster than the old type, there is one other check you can make at this time. After determining that the marks appear to be together at idle speed, rev up your engine briefly to about 2000-RPM.



The centrifugal timing advance in your igniter should advance your timing, and the effect will be that the timing mark on the fan pulley appears to move counter-clockwise away from the fixed mark.

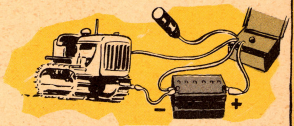


When you let the engine idle again the marks should come back together. If you don't get this effect, the igniter should go back to Ordnance to be checked and re-set, on the distributorscope.



There's another advantage to this new light over the old neon type, too. It's bright enough that you no longer have to paint the timing marks. If you can see 'em in daylight, you can see 'em in this light. And by the same token, you have enough light to see the marks even working outside on a bright day. No more turning off the shop lights or working under a tarp to make it dark. (Still, you'd better turn the vehicle so the timing marks are on the shady side.)

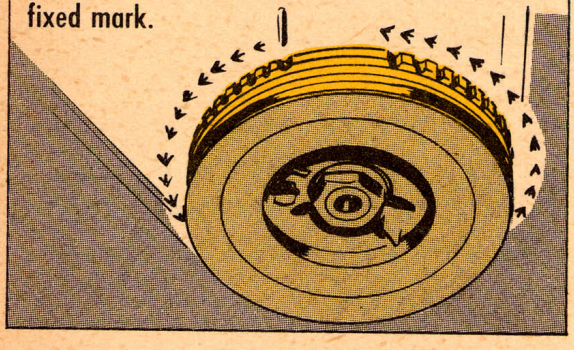
Now, this light will also serve to time magneto fired engines. In tanks or battery equipped tractors, etc., you use the same procedure as for trucks. In case you have a tractor or other item with no battery, you take either a 6- or a 12-volt battery over to the vehicle and use it to power the light. In this case you'll get the best results if you run a jumper from the battery **negative** post to the frame of the tractor to provide a return for the secondary current.




Now in stowing the leads in the timing-light box. Some people have felt that it was too crowded if they stuffed both leads and the lamp, clips and so on down into the stowage space. Could be, but if you coil the leads around in a loose

loop on top of the power unit and then stow the clips and lamp down in the stowage space, you'll find you have lots of room and no sharp bends to harm your insulation.

The centrifugal timing advance in your igniter should advance your timing, and the effect will be that the timing mark on the fan pulley appears to move counter-clockwise away from the fixed mark.



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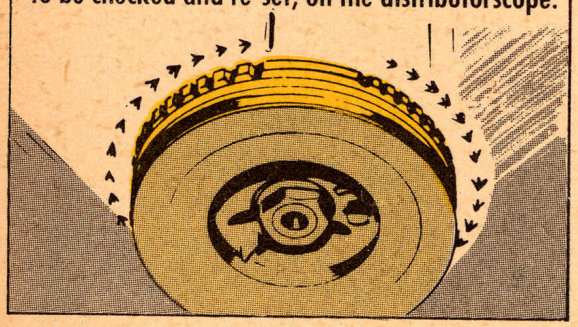

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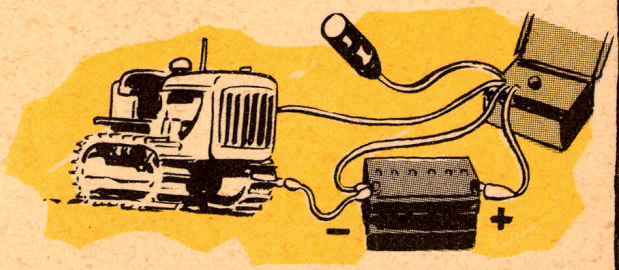


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loop on top of the power unit and then stow the clips and lamp down in the stowage space, you'll find you have lots of room and no sharp bends to harm your insulation.

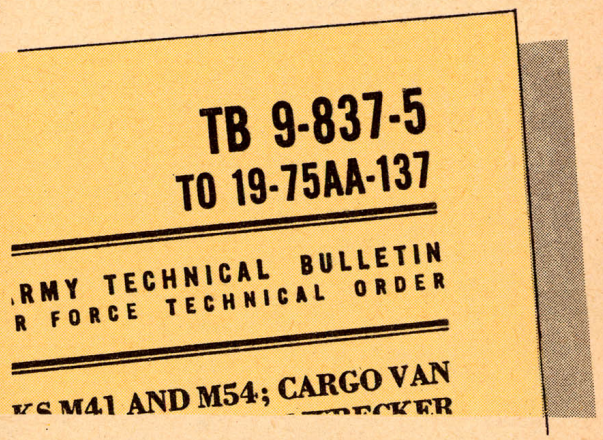
## Little 5-ton Clutch

# WEEP NO MORE

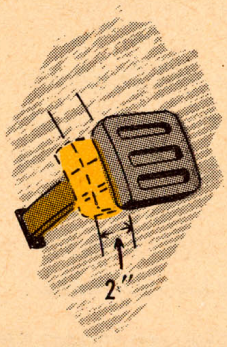
Do you 5-ton truckers hear a wail and a moan coming from around your transmission every time you take your G744 5-ton rig for a travel? If so, five'll get you ten you've got a flim-flammed clutch there.

Been lots of yak about the 5-ton clutch burning itself up. And, a lot of poop's come out on the deal. Just so's you know the latest, here're the TB's and MWO's which are aimed at fixing that clutch problem. If you carry out this info and are still having troubles, UER's are in order—and quick.

First, there's TB 9-837-5 (17 May 54), "Prevention of Clutch Failures." In it there are listed the four common causes of clutch failures and how to fix them up in the 5-tons.



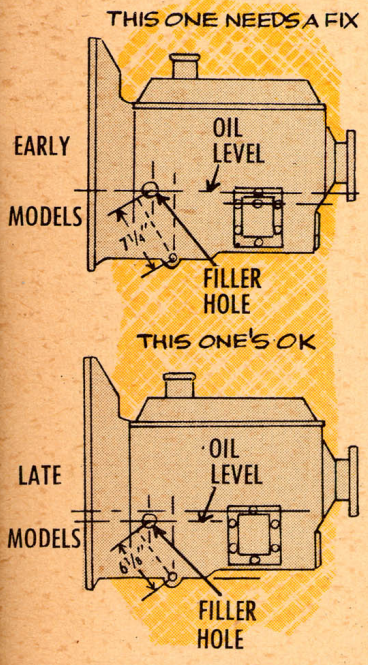

### INSUFFICIENT FREE CLUTCH-PEDAL TRAVEL




To fix up that "insufficient free clutch-pedal travel," you use your TM to make the right adjustment—that's TM. 9-8028, and you'll find that proper adjustment on page 306.

# THE CAUSES

## HIGH TRANSMISSION-OIL LEVEL

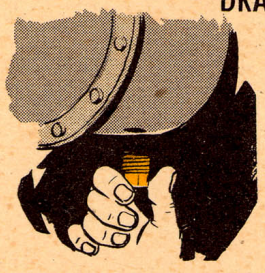



If you've got too much oil in your transmission, lube will get by the clutch-housing seal and into the clutch housing—gives slippage and burning. The right oil level is one inch below the filler hole on your earlier models and up to the filler hole on the later production models.

To get that filler hole in line on your early models, see MWO Ord G744-W4 (27 Aug 54)—the MWO which goes for your **early** models only. This MWO applies to those trucks which have the transmission filler and inspection hole above the power-take-off plate. Before you do anything, measure from the center of the drain plug to the center of the filler plug. If it's 6⅛ inches, then you've got a late model truck and you don't have to do a thing. But if you get a measurement of 7¼ inches, you have to do like the MWO says and get a new transmission oil filler hole in there.

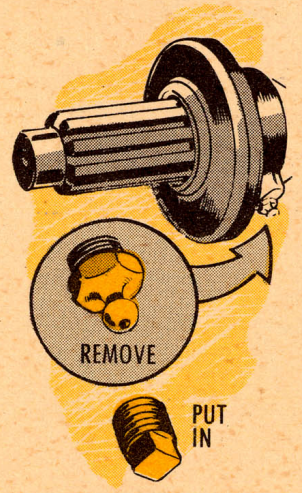
By the way, the right amount of oil to put into your transmission on **all** models, according to LO 9-8028 (14 Mar 55), is 22 pints with PTO and 18 pints without PTO.

## FAILURE TO REMOVE CLUTCH-HOUSING DRAIN-PLUG



"Failure to remove the clutch housing drain plug" after fording leaves oil in the bottom of the clutch housing, which will sooner or later rise high enough to be picked up by the flywheel and thrown against the clutch disk. To stop this, unscrew that drain plug from the flywheel housing and keep it in your map compartment. You'll use it only when you're getting ready for fording. But right after you ford, out she'll come again.

## OVERGREASING OF CLUTCH-RELEASE SLEEVE



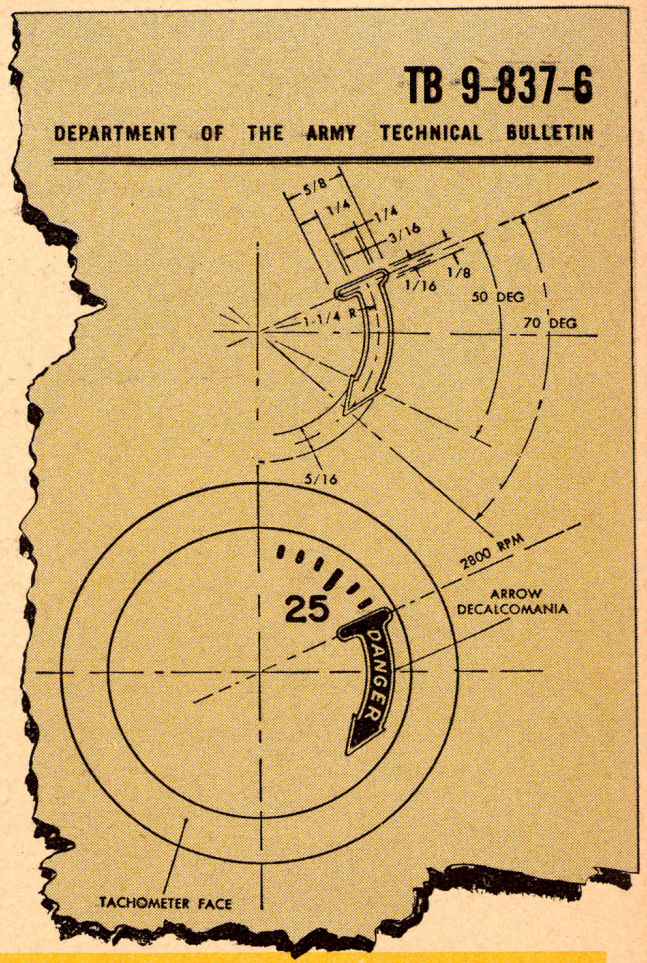

"Overgreasing of the clutch-release sleeve" causes your clutch to slip, which brings on burnt disks and hurts the pressure plate. To fix this up, you remove the grease fitting in the clutch-release sleeve and replace it with a ⅛-in square-head pipe plug (H006-0283900). Once that plug is in, you'll keep grease out of this sleeve. It'll get its share of lube when your clutch is rebuilt or overhauled. ➡

# TB 9-837-6

This TB (22 Sept 54) tells you what RPM to put on your governor so your engine won't overspeed and get you bad clutches as well as burn itself out.

The right RPM for your 5-ton trucks is 2800-RPM. When you're going downhill, you've got to be careful that your engine doesn't run away and speed up over this figure. When going downhill, you should pick a right gear range and use your service brake to keep that engine from revving up over 2800-RPM.

You can cut yourself out a little paste-up and put it on your tachometer to warn you about this. Like it shows in the TB, the cutout can be a danger marker, with its base pasted against the 2800 figure on your tach and pointed toward the higher scale.




# MWO Ord G744-W15 and MWO Ord G744-W16

There's not much you can do about these MWO's except get your truck back to Ordnance. They're higher echelon jobs, but they're classified as **urgent** and should be done right away —if not sooner.

MWO Ord G744-W15 (13 Sept 54) and its Change 1 (30 Mar 55) and Change 2 (1 Feb 56) tells Ordnance to put some jam nuts on your clutch-release lever so the nuts on the lever won't become loose and foul up the innards of your clutch.

MWO Ord G744-W16 (5 Nov 54) and its Change 1 (23 Mar 55) and Change 2 (13 Feb 56) tells Ordnance to put in a better seal that'll keep lube from getting into your clutch housing and lubing up the works. Once that oil and grease get on your clutch, the old boy burns and burns and burns.

That's it, except treating that clutch right while driving. Once you get these TB's and MWO's carried out (and you're not doing some fool thing like riding the clutch) and your clutch is still bugging up, there's only one thing you can do—deadline the thing and get a UER (Form 468) off soonest. When that's done, you can sit back—you've done your work and it's now up to Ordnance.

# TRICKY THERMOSTATS

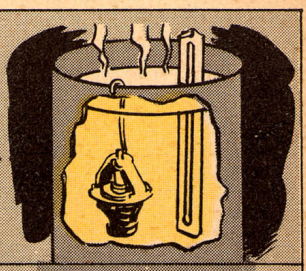
"Deceiving" is the word for those Vernatherm thermostats you'll find mounted on your G749 2½-ton trucks. Unless these babies are checked out right, they'll give you the idea that they're shot and ready for the junk pile.

This Vernatherm is a solid expansion type control that is **not** adjustable. Sure, you'll find an adjusting screw on it, but if you'll notice this screw is soldered on—it's only used for an initial adjustment at the factory. Then again the adjustment range for this thermostat is only about two or three degrees. So, just the way the thermostat comes to you is the way you're supposed to use it.

Another characteristic about this thermostat—it opens in the opposite way from the other type thermostats—in other words, it opens **against** water pressure. The installation of this control is important, so follow the installation instructions to the letter.

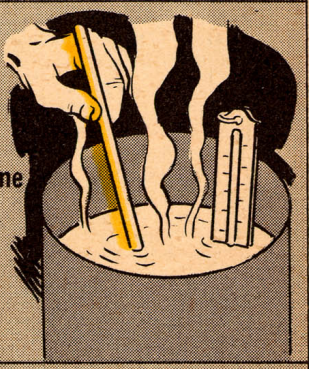
Now, here's how to check out these thermostats. If you don't do it the right way, you'll get the idea that your thermostat is on the bum whether it really is or not.

Take a container, at least one gallon in capacity, and fill it with water. Put the thermostat in the water so it's about three-quarters of the way below the surface but not touching bottom.

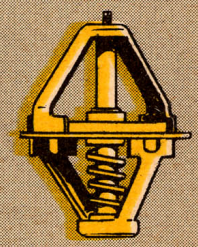


Start heating the water so the thermostat will be brought up to the temperature at which she's supposed to open.

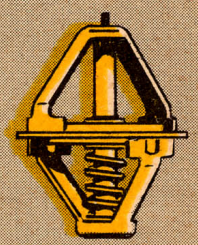
While the water's heating—and this is a darned important step—you have to keep stirring that water. This keeps the temperature of the water the same throughout the whole container, so you won't get different temperatures in different parts of the container.



Without this agitation, that thermostat may open while the thermometer shows a temperature below or above the one at which she's supposed to and you'd junk her, whether she was good or not.



The thermostat should start opening at 170 degrees and be fully open at 185 degrees. If the thermostat fails to open after you let it sit awhile at 185 degrees, then you'll know she's bad, and you'll get rid of it.



**For more dope on thermostats, see TM9-2855 (JAN 51)**

*When it comes to safety—*

# DIG THAT K-R-A-Z-Y COLOR

You M62 wrecker wrestlers have been wondering how you can keep some poor guy from driving his classy car up your boom?

Say, for example, you have your wrecker stopped on the highway, all set up to take on a job.

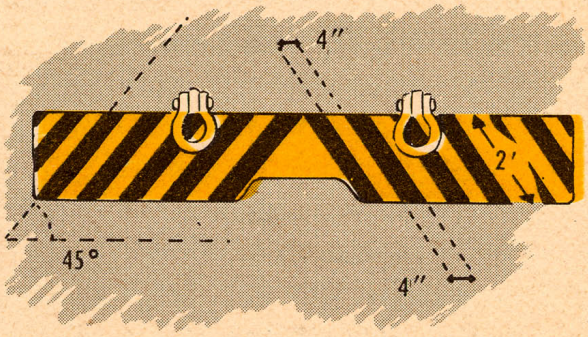
It's late—maybe a little dark and foggy—and here comes Joe Shmoe with nothing on his mind but the scenery. That olive drab of the wrecker doesn't throw much light his way, and before he knows it—he's draped over the boom and the rear end of his car is sticking out the tail pipe of the wrecker.

All that's been changed now by AR 746-2300-1 (29 Dec 1955). This hot-off-the-press AR says this in para 15: "When authorized by the appropriate commander, stripes of a contrasting color may be applied to certain vehicles and equipment in **non-tactical operations**, which due to size, construction, or function present a possible safety hazard, to permit them to be more readily visible to drivers of other vehicles."

Watch those words **non-tactical operations.** This means that tactical TOE vehicles should have no safety markings on them at all. These vehicles have to be kept ready for combat.

So, the way it breaks down is like this: Any tactical-type vehicle used administratively may be safety color marked if you get the OK of your CO. But vehicles in a tactical unit are **not** to be safety color marked.

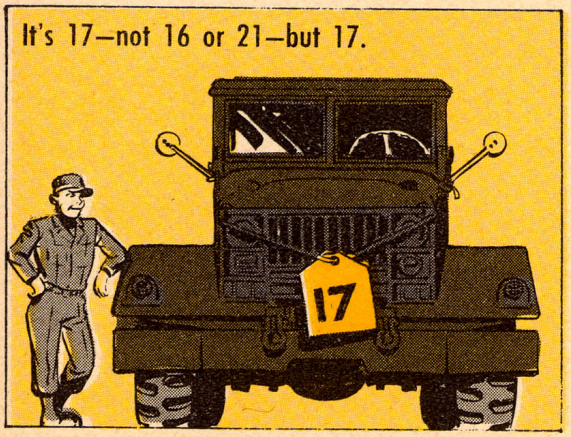
The AR says you doll your safety-hazard piece of equipment up by using stripes. "These stripes are normally applied only on the rear of such vehicles; however, they may also be applied on the front and even certain side surfaces when conditions so warrant."

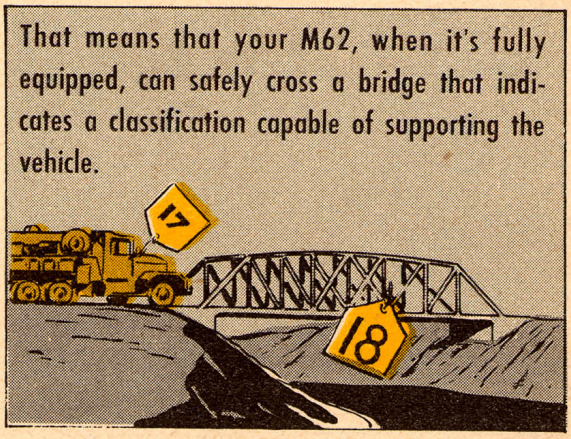



The kind of paint you use for these stripes depends on the color of your vehicle. If your vehicle's painted OD or any other dark color, you'll use gloss yellow (No. 1310). If your vehicle's painted yellow or any other light color, you'll use gloss black (No. 1775).

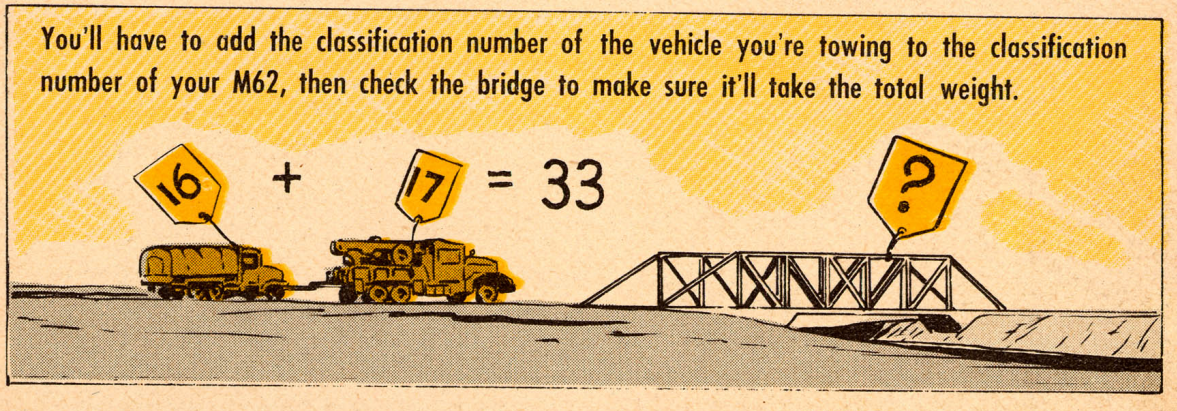
# BRIDGE THE GAP

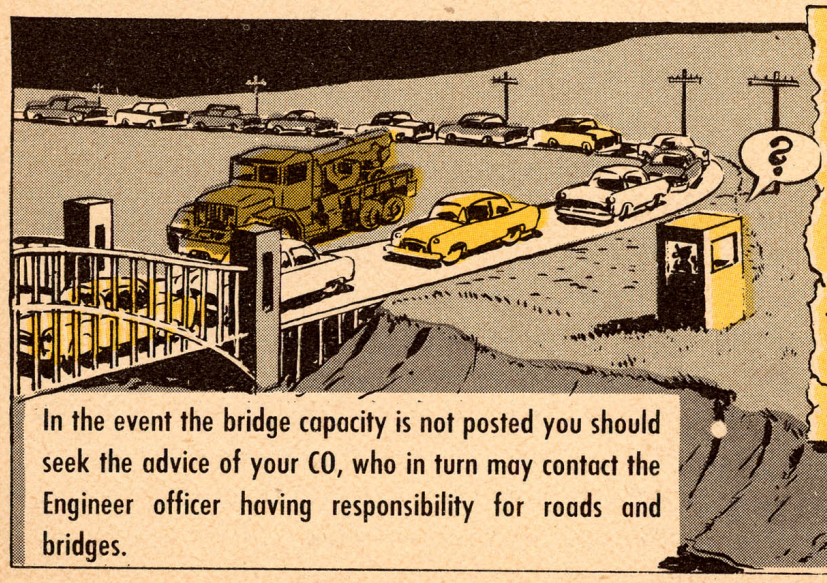
Before your M62 Wrecker makes a gap in the bridge you should have the correct vehicle classification number on your vehicle.




There's another thing you've got to remember too—



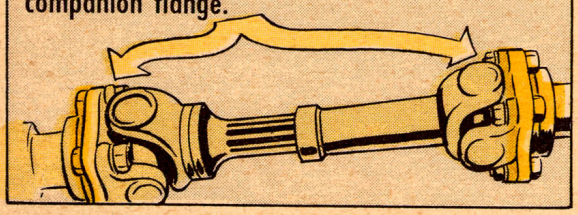

The correct classification number for the M62 Wrecker is reflected in a change to FM5-36, Route Reconnaissance and Classification (April 55).

# A NUTTY PROBLEM

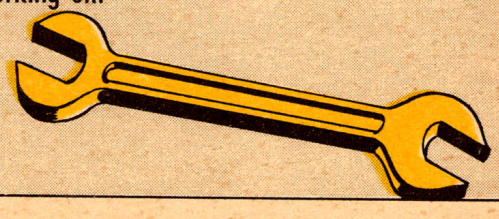
When those nuts that anchor the propellor shaft between the transmission and the transfer case start dangling, you can be pretty sure something's going to rupture before too long if you don't fix 'em up.

Ride your ¾-ton, 2½-ton and 5-ton M-series trucks with a lax shaft for a time, and its nuts and bolts will grind away at the flange holes and get them out of shape and over-size. Stretch, vibration and wear make those hex nuts lose their grip.

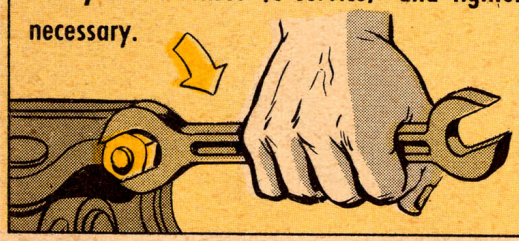
1
There are eight nuts to catch—four on the transfer case flange and four on the transmission's companion flange.



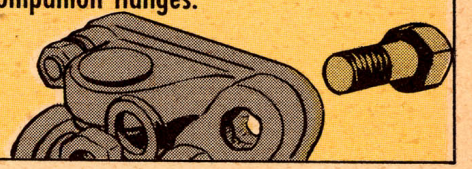
2
All you need is a standard wrench, ¾-in or 9/16-in depending on what kind of truck you're working on.



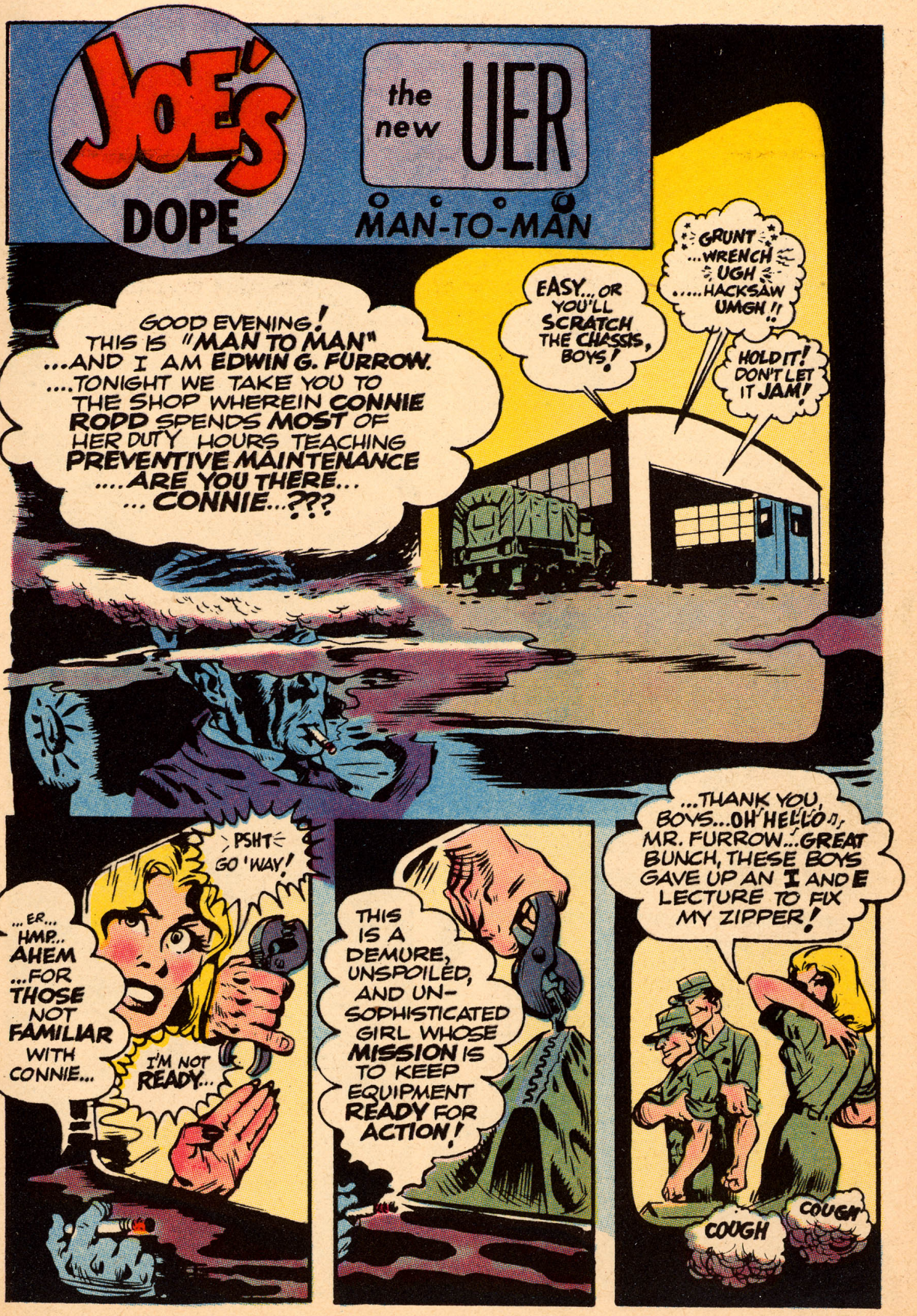
3
It's a good idea to check those nuts for tightness **every 1000 miles** (C service)—and tighten if necessary.



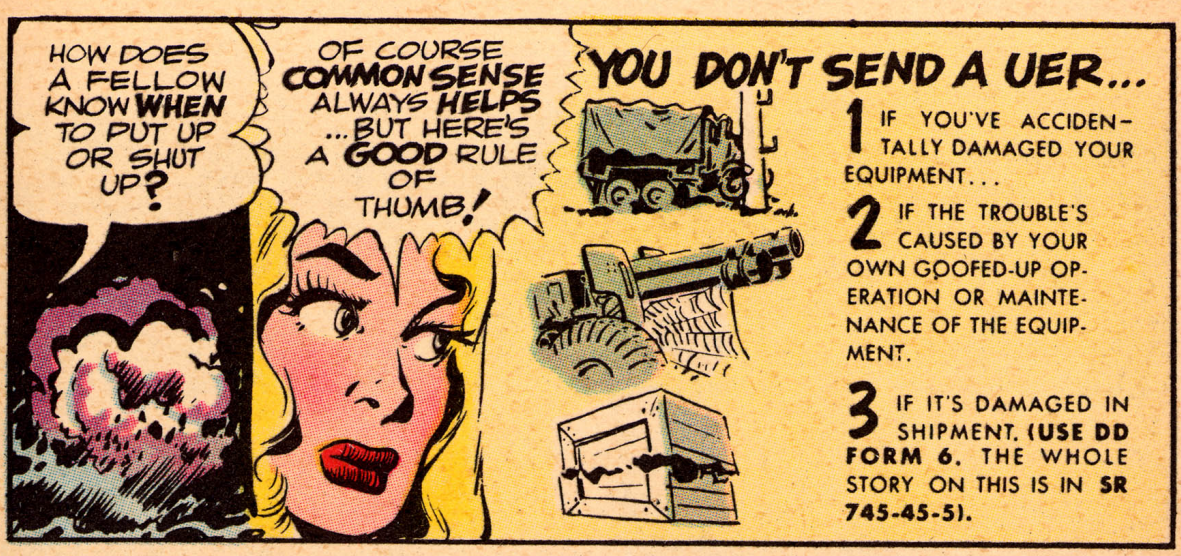
4
If you find that the screw holes are out of shape on your **¾-ton trucks**, remove the nuts, washers and cap screws that hold the flange yokes to the companion flanges.

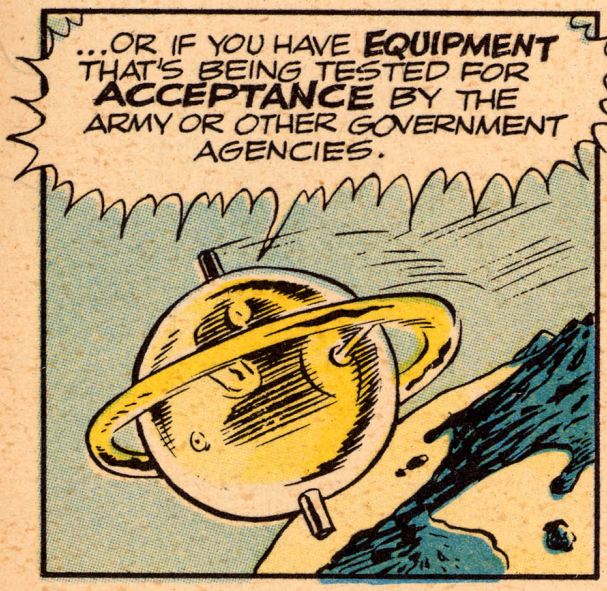


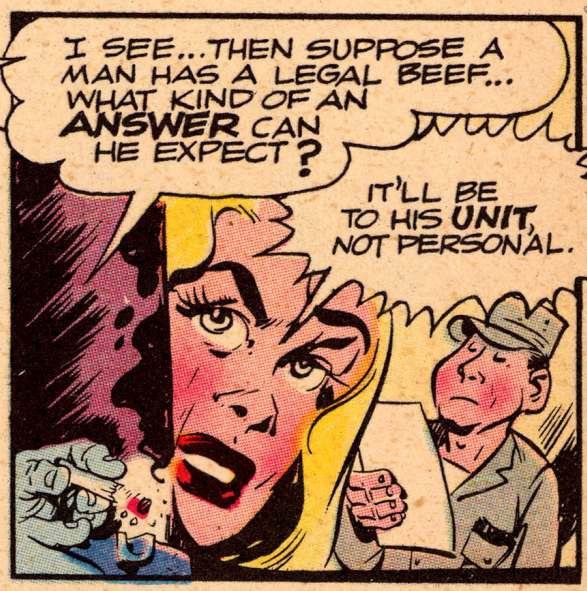
5
Get yourself some of those new serrated bolts (Ord Stock No. G741-8333256) and tighten the flange yokes and the flanges with these bolts and the old nuts and washers. Torque 'em up to between **30-35 foot pounds**, like TB 9-840-15 (8 June 54) says.


JOE'S DOPE
the new UER
MAN-TO-MAN
GOOD EVENING! THIS IS "MAN TO MAN" ...AND I AM EDWIN G. FURROW. ....TONIGHT WE TAKE YOU TO THE SHOP WHEREIN CONNIE RODD SPENDS MOST OF HER DUTY HOURS TEACHING PREVENTIVE MAINTENANCE ....ARE YOU THERE... ... CONNIE...???
EASY... OR YOU'LL SCRATCH THE CHASSIS, BOYS!
GRUNT ...WRENCH UGH .....HACKSAW UMGH!!
HOLD IT! DON'T LET IT JAM!
...ER... HMP... AHEM ...FOR THOSE NOT FAMILIAR WITH CONNIE...
PSHT GO 'WAY!
I'M NOT READY...
THIS IS A DEMURE, UNSPOILED, AND UN-SOPHISTICATED GIRL WHOSE MISSION IS TO KEEP EQUIPMENT READY FOR ACTION!
...THANK YOU, BOYS...OH HELLO, MR. FURROW...GREAT BUNCH, THESE BOYS GAVE UP AN I AND E LECTURE TO FIX MY ZIPPER!
COUGH
COUGH

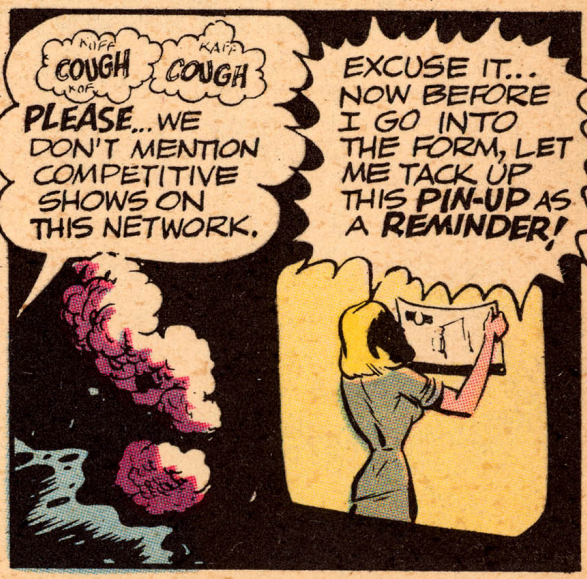
WHAT ARE YOU DOING, CONNIE?
...TEACHING THE BOYS THE PROPER USE OF THE REVISED UER FORM ...OR..."UNSATISFACTORY EQUIPMENT REPORT," WHICH IS BASED ON THIS NEW AR 700-38 (NOV 55).
WHAT'S THAT?
WELL, ITS PURPOSE IS TO GIVE THE USING TROOPS A CHANCE TO TELL THE TOP BRASS WHEN A PIECE OF EQUIPMENT IS NOT WORKING AS IT SHOULD...
EXPED
DA FORM 468
...FOR EXAMPLE, IF IT'S NOT DESIGNED RIGHT FOR THE JOB IT'S SUPPOSED TO DO...OR IF A PART'S ACTING IN A WAY THAT ENDANGERS THE PIECE, OR OPERATOR, YOU SEND A UER...AND YOU SEND IT AS OFTEN AS THE TROUBLE APPEARS. IF YOU CAN'T DO PROPER MAINTENANCE ON YOUR EQUIPMENT, YOU TELL IT ALL ON THIS FORM... IT'S JUST THE PLACE TO TELL ABOUT TOO MUCH WEAR OR DETERIORATION FOR AMOUNT OF TIME AND CONDITION UNDER WHICH EQUIPMENT WAS USED. ALSO, IT'S FOR TELLING ABOUT ANY DEFECT SUCH AS MISSING PARTS, WRONG FIT, CRACKS, BAD MATERIALS, OR POOR WORKMANSHIP.
COUGH
COUGH
SORT OF GIVES THE OPERATOR A CHANCE TO EITHER PUT UP OR SHUT UP... EH, CONNIE?
KAFF
KOFF KOFF
FROM A BAYONET TO A TANK, IF AFTER YOU'VE GIVEN IT A FAIR CHANCE, INCLUDING PROPER MAINTENANCE, AND IT STILL DOESN'T PERFORM RIGHT.... THEN YOU FILL OUT THIS UER AND SEND IT RIGHT UP TO TOPSIDE...OR IF YOU FIND SOMETHING IN YOUR EQUIPMENT'S TECHNICAL PUBLICATIONS THAT'S OFF BASE, GIVE WITH A UER!

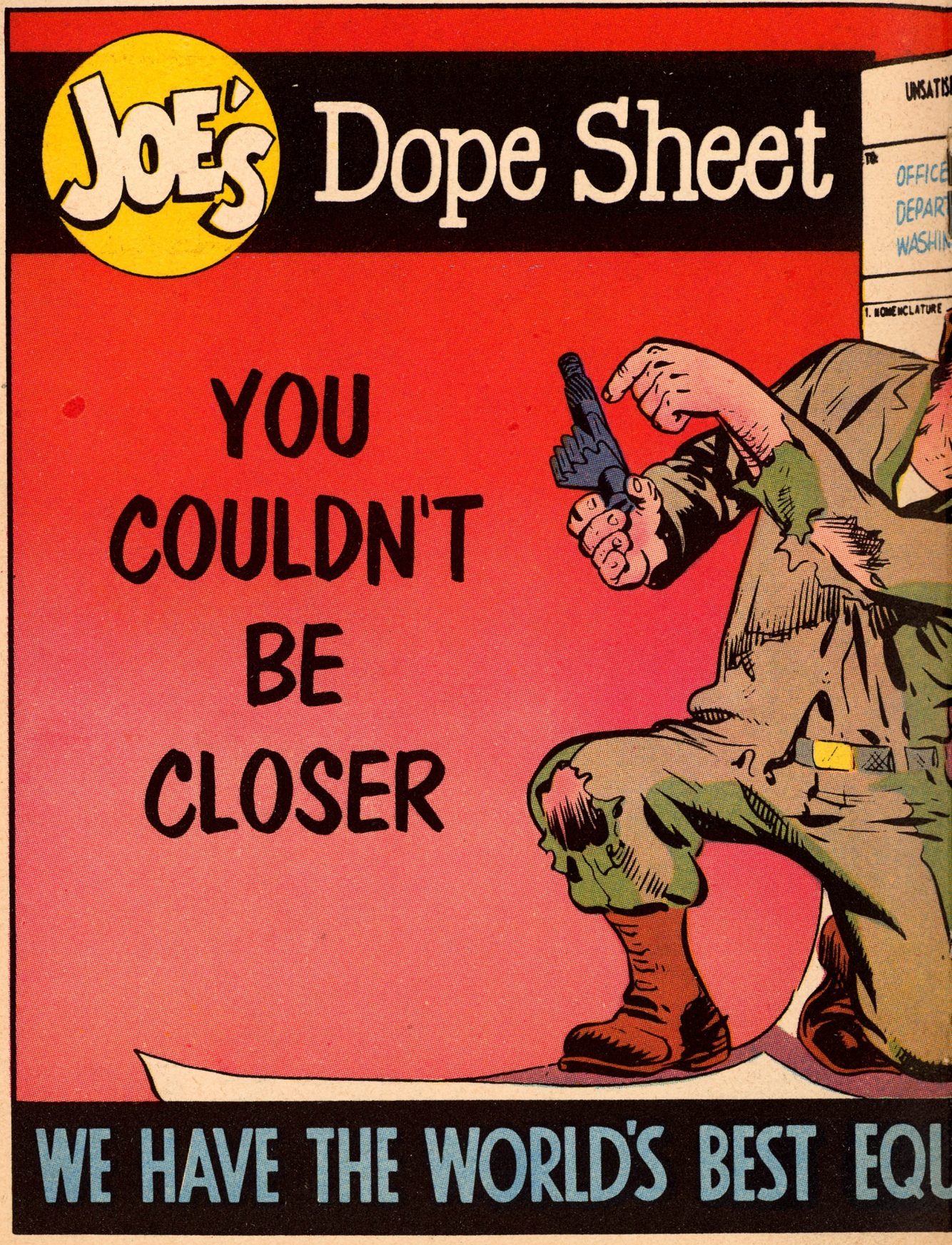

HOW DOES A FELLOW KNOW WHEN TO PUT UP OR SHUT UP?
OF COURSE COMMON SENSE ALWAYS HELPS ...BUT HERE'S A GOOD RULE OF THUMB!
YOU DON'T SEND A UER...
1 IF YOU'VE ACCIDENTALLY DAMAGED YOUR EQUIPMENT...
2 IF THE TROUBLE'S CAUSED BY YOUR OWN GOOFED-UP OPERATION OR MAINTENANCE OF THE EQUIPMENT.
3 IF IT'S DAMAGED IN SHIPMENT. (USE DD FORM 6. THE WHOLE STORY ON THIS IS IN SR 745-45-5).


...OR IF YOU HAVE EQUIPMENT THAT'S BEING TESTED FOR ACCEPTANCE BY THE ARMY OR OTHER GOVERNMENT AGENCIES.

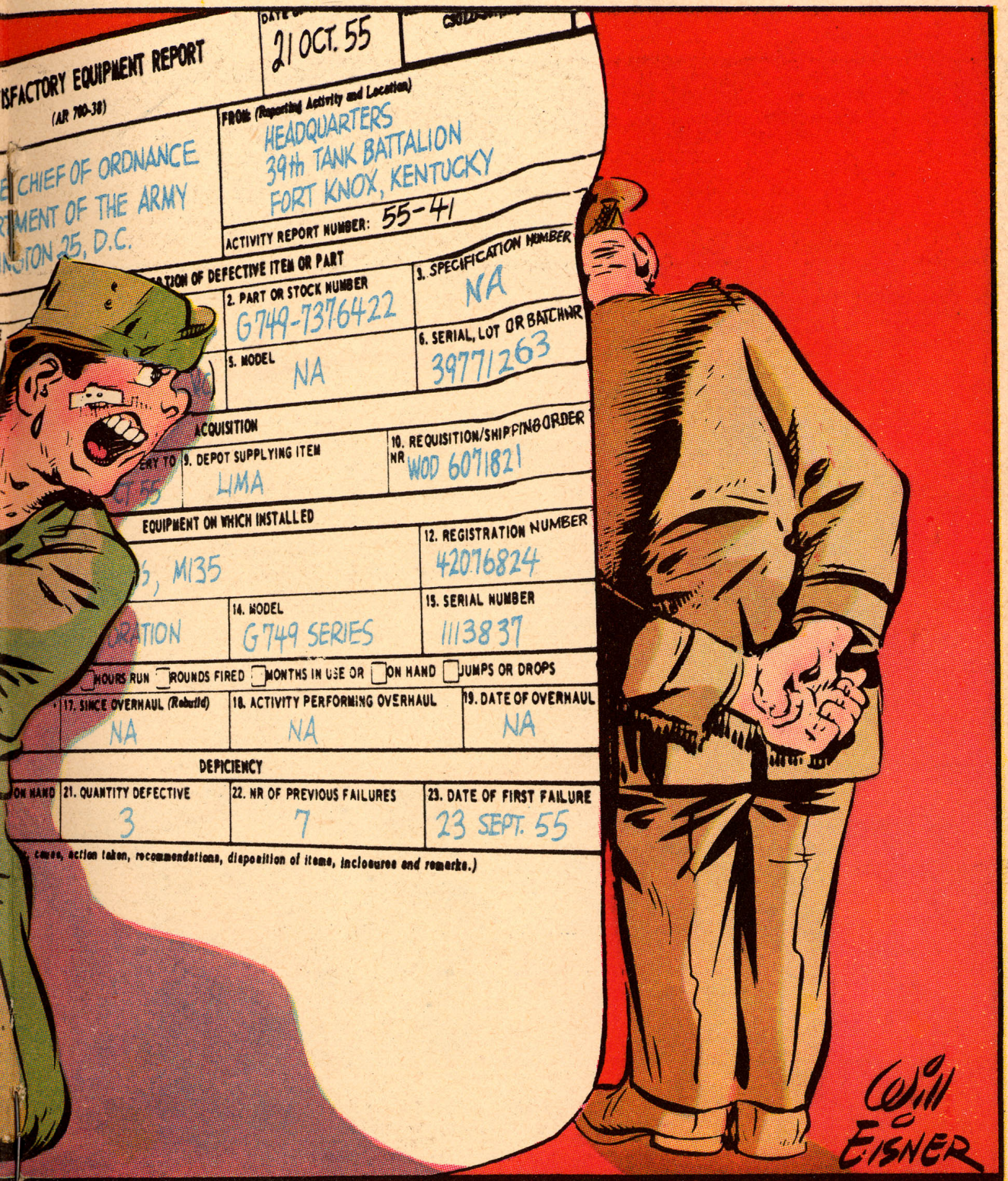

I SEE...THEN SUPPOSE A MAN HAS A LEGAL BEEF... WHAT KIND OF AN ANSWER CAN HE EXPECT?
IT'LL BE TO HIS UNIT, NOT PERSONAL.

...YOU GOTTA REMEMBER THOUGH, THE FINAL ANSWER MIGHT COME AS A TB OR MWO. IT'S NOT A "PERSON-TO-PERSON" DEAL....
OH....


COUGH
COUGH
PLEASE...WE DON'T MENTION COMPETITIVE SHOWS ON THIS NETWORK.
EXCUSE IT... NOW BEFORE I GO INTO THE FORM, LET ME TACK UP THIS PIN-UP AS A REMINDER!

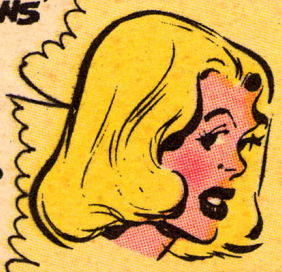

JOE'S
Dope Sheet
YOU COULDN'T BE CLOSER
UNSATIS
OFFICE
DEPART
WASHIN
1. NOMENCLATURE
WE HAVE THE WORLD'S BEST EQU

JOE'S
Dope Sheet
YOU COULDN'T BE CLOSER
UNSATISFACTORY EQUIPMENT REPORT
(AR 700-38)
21 OCT. 55
TO: OFFICE CHIEF OF ORDNANCE DEPARTMENT OF THE ARMY WASHINGTON 25, D.C.
FROM (Reporting Activity and Location) HEADQUARTERS 34th TANK BATTALION FORT KNOX, KENTUCKY
ACTIVITY REPORT NUMBER: 55-41
1. NOMENCLATURE
2. PART OR STOCK NUMBER G749-7376422
3. SPECIFICATION NUMBER NA
5. MODEL NA
6. SERIAL, LOT OR BATCH NR 3977263
9. DEPOT SUPPLYING ITEM LIMA
10. REQUISITION/SHIPPING ORDER NR W00 6071821
EQUIPMENT ON WHICH INSTALLED
12. REGISTRATION NUMBER 42076824
14. MODEL G749 SERIES
15. SERIAL NUMBER 1113837
17. SINCE OVERHAUL NA
18. ACTIVITY PERFORMING OVERHAUL NA
19. DATE OF OVERHAUL NA
DEFICIENCY
21. QUANTITY DEFECTIVE 3
22. NR OF PREVIOUS FAILURES 7
23. DATE OF FIRST FAILURE 23 SEPT. 55
WE HAVE THE WORLD'S BEST EQUIPMENT... Take care of it
WILL EISNER




# UIPMENT... Take care of it

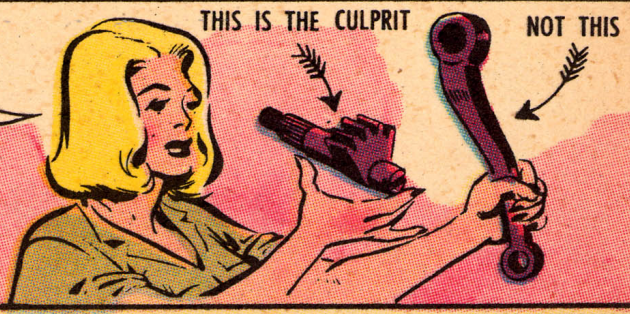
ON THESE TWO PAGES I'VE SET UP A **SAMPLE** FORM, TEARING THE **SECTIONS** APART. IT'S PRETTY SELF EXPLANATORY, BUT I'LL JOIN YOU ON THE **TOUGHER** ONES. IF YOU HAVEN'T GOT A TYPEWRITER, INK OR PENCIL'LLDO. **READY?** OKAY, PUT YOUR HOT LITTLE HAND IN MINE, AND **AWAY** WE GO.



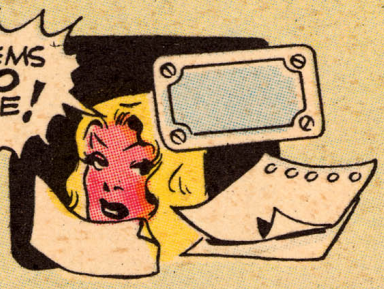
# HERE'S WHERE

NOTE REPORT NUMBER (USE YOUR OWN ACTIVITY REPORT NUMBER). THIS EXAMPLE IS COMPOSED OF THE LAST TWO DIGITS OF THE CALENDAR YEAR. IT'S THE 41ST UER SENT IN DURING 1955.

THE **TRICKY** ONES ARE **ITEMS 1** TO **6**... REMEMBER THE **DEFECTIVE** PART IS THE ONE **CAUSING** THE TROUBLE—NOT THE **ONE** THAT'S GETTING RUINED **BECAUSE** OF IT...

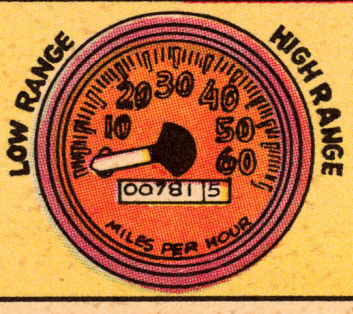



NOTE ITEMS **7** TO **10** PLEASE!



YOU SHOULD BE ABLE TO GET ALL THE DOPE YOU NEED ON PARTS YOU GOT FROM SUPPLY FROM NAME PLATES, CONTAINER MARKINGS, DOCUMENTS INSIDE PACKAGES, ETC. STICK TO THE INFO YOU'RE BEEFING ABOUT . . . WHERE THE BAD PART ORIGINALLY CAME ON A PIECE OF EQUIPMENT, GIVE INFO ON MAJOR ITEM ONLY AND NOT THE PART.

**HERE**, TELL ABOUT THE EQUIPMENT ON WHICH THE **BAD** PART IS INSTALLED. IF THE PART APPLIES TO **MORE** THAN ONE TYPE OF **MAJOR** ITEM AND THE **DEFICIENCY** WAS FOUND **BEFORE** OR **DURING** INSTALLATION... LEAVE IT **BLANK!**




**USAGE** . . . CHECK ONLY THE BOX THAT APPLIES . . . WHAT THEY MEAN HERE IS THE NUMBER OF MILES, HOURS OF RUNNING OR HOW MANY ROUNDS FIRED BY WEAPON (RIFLE, PISTOL, ETC.) BEFORE IT FAILED. ALSO THE TOTAL LENGTH OF TIME THE PART WAS ON HAND, INSTALLED, AND/OR IN USE

# HERE'S WHERE YOU ADDRESS IT TO AND FROM

ON THESE TWO PAGES I'VE SET UP A **SAMPLE** FORM, TEARING THE **SECTIONS** APART. IT'S PRETTY SELF-EXPLANATORY, BUT I'LL JOIN YOU ON THE **TOUGHER** ONES. IF YOU HAVEN'T GOT A TYPEWRITER, INK OR PENCIL'LL DO. **READY?** OKAY, PUT YOUR HOT LITTLE HAND IN MINE, AND **AWAY** WE GO.

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**UNSATISFACTORY EQUIPMENT REPORT**
(AR 700-38)

DATE OF REPORT: 21 OCT 55

REPORTS CONTROL SYMBOL CSGLD-247(R2)

TO: OFFICE CHIEF OF ORDNANCE
DEPARTMENT OF THE ARMY
WASHINGTON 25, D.C.

FROM: (Reporting Activity and Location)
HEADQUARTERS
39th TANK BATTALION
FORT KNOX, KENTUCKY

ACTIVITY REPORT NUMBER: 55-41

THE **TRICKY** ONES ARE **ITEMS 1** TO **6**... REMEMBER THE **DEFECTIVE** PART IS THE ONE **CAUSING** THE TROUBLE—NOT THE **ONE** THAT'S GETTING RUINED **BECAUSE** OF IT...

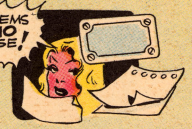
USE A SUPPLY MANUAL FOR THE CORRECT NAME

IF THE BLOCK DOESN'T APPLY TO YOUR EQUIPMENT, OR TO THE DEFICIENCY, WRITE "NA" (NOT APPLICABLE)

IDENTIFICATION OF DEFECTIVE ITEM OR PART

| 1. NOMENCLATURE | 2. PART OR STOCK NUMBER | 3. SPECIFICATION NUMBER |
|---|---|---|
| SHAFT, PITMAN ARM | G749-7376422 | NA |
| **4. MANUFACTURER** | **5. MODEL** | **6. SERIAL, LOT OR BATCH NR** |
| SAGINAW STEERING GEAR DIVISION (GMC) | NA | NA |

NOTE ITEMS **7** TO **10**, PLEASE!



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ACQUISITION

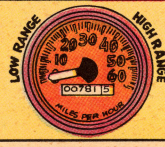
| 7. CONTRACT NUMBER | 8. DATE OF DELIVERY TO GOVT | 9. DEPOT SUPPLYING ITEM | 10. REQUISITION/SHIPPING ORDER NR |
|---|---|---|---|
| DA 20-369-ORD-809 | 4 AUG 55 | LIMA | WOO 607821 |

THIS INFORMATION IS MIGHTY IMPORTANT. IT'LL HELP PIN DOWN THE TIME AND PLACE THE EQUIPMENT WAS MANUFACTURED—SO OTHER EQUIPMENT MANUFACTURED AT THE SAME TIME AND PLACE CAN BE CHECKED OVER CAREFULLY.

**HERE** TELL ABOUT THE EQUIPMENT ON WHICH THE **BAD** PART IS INSTALLED. IF THE PART APPLIES TO **MORE** THAN ONE TYPE OF **MAJOR** ITEM AND THE **DEFICIENCY** WAS FOUND **BEFORE** OR **DURING** INSTALLATION... LEAVE IT **BLANK!**

EQUIPMENT ON WHICH INSTALLED

| 11. NOMENCLATURE | 12. REGISTRATION NUMBER |
|---|---|
| TRUCK, CARGO, 2½-TON, 6X6, M135 | 4207659 24 |
| **13. MANUFACTURER** | **14. MODEL** | **15. SERIAL NUMBER** |
| GENERAL MOTORS CORPORATION | G749 SERIES | 1138 37 |

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USAGE (Check one) ☑ MILEAGE ☐ HOURS RUN ☐ ROUNDS FIRED ☐ MONTHS IN USE OR ☐ ON HAND ☐ JUMPS OR DROPS

| 16. TOTAL | 17. SINCE OVERHAUL (Rebuild) | 18. ACTIVITY PERFORMING OVERHAUL | 19. DATE OF OVERHAUL |
|---|---|---|---|
| 781 | NA | NA | NA |

BEFORE IT WENT KAPUT; OR TOTAL NUMBER OF JUMPS OR DROPS. REBUILT ITEM? THEN ALSO TELL HOW LONG IT HAS BEEN IN USE SINCE REBUILT, AND THE PLACE AND DATE OF REBUILD, IF YOU CAN GET THAT INFO.

# YOU ADDRESS IT TO AND FROM

**UNSATISFACTORY EQUIPMENT REPORT**
*(AR 700-38)*

DATE OF REPORT: 21 OCT. 55

REPORTS CONTROL SYMBOL CSGLD-247(R2)

TO:
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|---|---|---|
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| SAGINAW STEERING GEAR DIVISION (GMC) | NA | NA |

**ACQUISITION**

| 7. CONTRACT NUMBER | 8. DATE OF DELIVERY TO GOVT | 9. DEPOT SUPPLYING ITEM | 10. REQUISITION/SHIPPING ORDER NR |
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**EQUIPMENT ON WHICH INSTALLED**

| 11. NOMENCLATURE | | 12. REGISTRATION NUMBER |
|---|---|---|
| TRUCK, CARGO, 2½-TON, 6X6, M135 | | 42076824 |
| **13. MANUFACTURER** | **14. MODEL** | **15. SERIAL NUMBER** |
| GENERAL MOTORS CORPORATION | G749 SERIES | 1113837 |

USAGE *(Check one)* ☑ MILEAGE ☐ HOURS RUN ☐ ROUNDS FIRED ☐ MONTHS IN USE OR ☐ ON HAND ☐ JUMPS OR DROPS

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BEFORE IT WENT KAPUT; OR TOTAL NUMBER OF JUMPS OR DROPS. REBUILT ITEM? THEN ALSO TELL HOW LONG IT HAS BEEN IN USE SINCE REBUILT, AND THE PLACE AND DATE OF REBUILD, IF YOU CAN GET THAT INFO.

TELL THE NUMBER OF THE SAME KIND OF FAILURES YOU'VE HAD BEFORE THAT YOU'VE ALREADY SENT IN UER'S ON.

GIVE DATE OF EARLIEST FAILURE.

DEFICIENCY

| 20. TOTAL QUANTITY ON HAND | 21. QUANTITY DEFECTIVE | 22. NR OF PREVIOUS FAILURES | 23. DATE OF FIRST FAILURE |
|---|---|---|---|
| 126 | 3 | 7 | 23 SEPT. 55 |

24. DETAILS (Description, cause, action taken, recommendations, disposition of items, inclosures and remarks.)

GIVE DETAILS!

SPLINES ON PITMAN ARM SHAFT TWISTED AND FINALLY SHAFT BROKE. THIS ENDANGERED THE DRIVER OF VEHICLE AND CAUSED MINOR DAMAGE TO THE TRUCK. TRUCKS HAD BEEN TRAVELING OVER ROUGH COUNTRY ROADS AT AVERAGE SPEEDS OF 20 MPH. TRUCKS WERE DRIVEN BY EXPERIENCED DRIVERS AND ALL ACCEPTED DRIVING PROCEDURES WERE ADHERED TO. ALL MWO's HAVE BEEN APPLIED TO THIS TRUCK.

MAKE RECOMMENDATIONS!

IT IS RECOMMENDED THAT THIS SHAFT BE MADE MORE CAREFULLY AND THE TYPE OF METAL BEING USED BE CHECKED FOR SUITABILITY.

TELL WHAT YOU DID WITH BAD ITEM!

THE DEFECTIVE PART IS BEING HELD AT THIS STATION UNTIL DISPOSITION INSTRUCTIONS ARE RECEIVED.

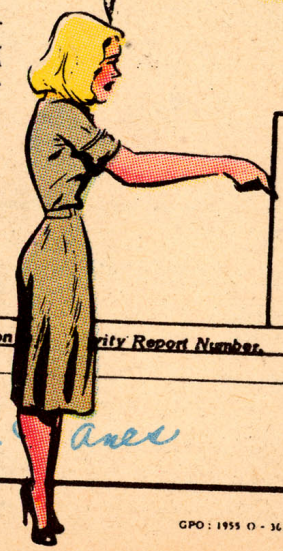
PICTURES ARE OFTEN WORTH A THOUSAND WORDS, SO IF IT'LL HELP, DRAW A DIAGRAM. IF YOU NEED MORE SPACE USE AN EXTRA SHEET— DON'T WRITE ON THE BACK!!

IF YOU GET PICTURES SEND THEM WITH THE UER

LEAVE THIS BLANK!

DON'T FORGET THAT YOU OUGHT TO SEND IN A UER WHENEVER YOU HAVE A REPEAT FAILURE OR THE TROUBLE GETS WORSE.

GIVE ALL THE INFO YOU CAN. IT'LL HELP THE DESIGN PEOPLE GET A FIX WORKED UP RIGHT AWAY. FOR EXAMPLE, LOTS OF MODIFICATIONS (MWO'S) COME OUT AS A RESULT OF UER'S THAT WENT IN.



SERVICE REPORT NR

NOTE: Do not use reverse side. He[illegible]e sheets with Reporting Activity, Location [illegible]rity Report Number.

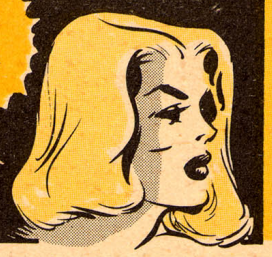
REPORT SUBMITTED BY

| TYPED NAME, GRADE OR TITLE | SIGNATURE |
|---|---|
| D.R. HANES<br>CAPT, ARMOR<br>BN. MOTOR OFFICER | Don R. Hanes |

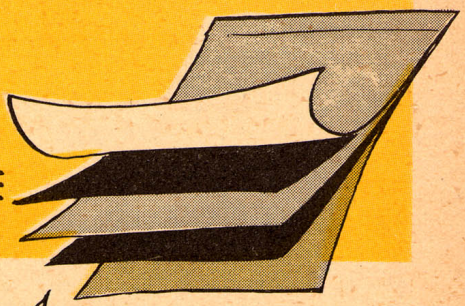
DA FORM 1 OCT 88 468 REPLACES PREVIOUS EDITIONS OF THIS FORM AND DD FORM 838, 1 OCT 53, (for Army use) WHICH ARE OBSOLETE.

GPO: 1955 O - 363439

REMEMBER



FILL IT OUT IN TRIPLICATE



KEEP **ONE** COPY AND SEND **TWO** COPIES TO THE **TECHNICAL SERVICE** RESPONSIBLE FOR THE ITEM INVOLVED. (YOU MAKE OUT A **NEW** FORM FOR **EACH DIFFERENT** ITEM.)

CHIEF OF ORDNANCE
DEPT. OF THE ARMY
WASH. 25, D.C.

CHIEF, CHEMICAL CORPS
DEPT. OF THE ARMY
WASH. 25, D.C.

CHIEF, TRANSPORTATION CORPS
DEPT. OF THE ARMY
WASH. 25, D.C.

THE QUARTERMASTER GEN'L.
DEPT. OF THE ARMY
WASH. 25, D.C.

**SIGNAL ITEMS**

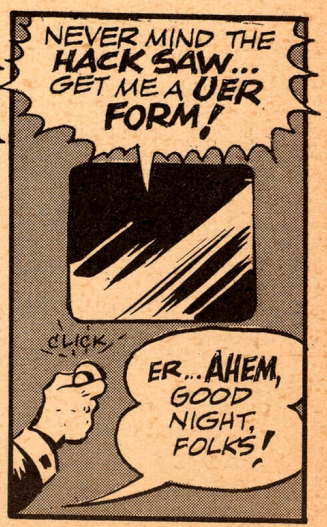
COMMANDING GENERAL
SIGNAL CORPS ENGINEERING LABS
FORT MONMOTH, NEW JERSEY

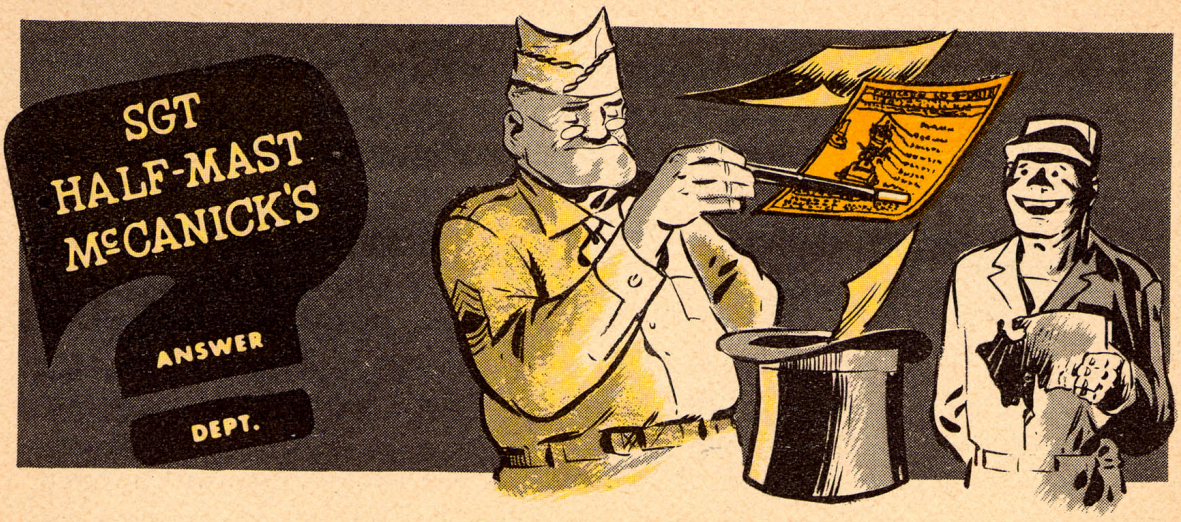
**MEDICAL ITEMS**
THRU SERVICING DEPOT

CHIEF, ARMY MEDICAL
SUPPLY OFFICE
84 SANDS STREET
BROOKLYN, N.Y.

**ENGINEER ITEMS**

COMMANDING GENERAL
ENGINEER MAINTENANCE CENTER
PO BOX 119
COLUMBUS 16, OHIO
ATTN. MAINTENANCE ENGINEERING DIV.






## LO GETTING

*Dear Half-Mast,*

*I was in for kind of a surprise the other day when I tried to get a new lube order for my vehicle. I was told in no uncertain words that I was only authorized one LO—the one I got when I first got my vehicle.*

*This took me kind of aback, so I got out my copy of Ord 7 SNL and thumbed thru it. Sure enough, the Ord 7 doesn't list any replacement LO's. What a catastrastroke!*

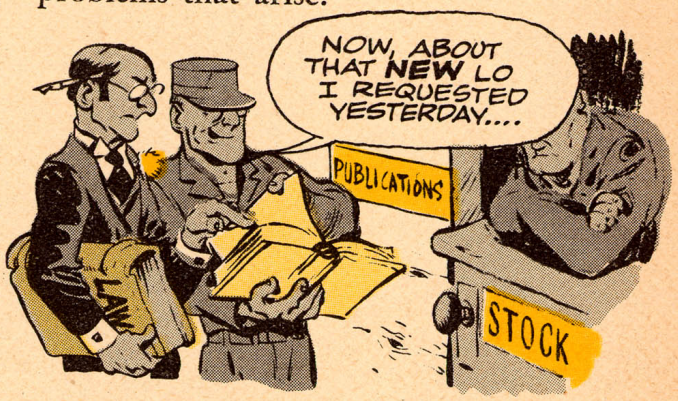
*You know, Sarge, if a guy uses his initial distribution LO long enough, it gets dirty, beat up and practically unusable. Is there any provision at all a guy can use to requisition a new LO, or do we just do without one?*

*Cpl M. U. R.*

Dear Cpl M. U. R.,

Things aren't as black as they seem. You can get a replacement LO (or any publication) if you need it, and all you have to use are a couple of quotes from AR 310-90 (1 Sept 55).

First of all, it would be a good idea if you went to your unit's library or your post's publications office and looked at a copy of this AR. Get familiar with what it has to say, and you can probably solve many publications problems that arise.




In connection with this LO problem, the first part of the AR you'd be interested in would be para 3 b. It says: "Distribution will be made by commanders on a 'need-to-know' basis." "Need-to-know" is defined in the case of a small unit commander (company, battery and similar size unit) as—

*"(1) Publications that place a responsibility upon or require an action by a company or battery commander."*

Because your company or battery commander has the responsibility for the trucks and other equipment in your

outfit, it's a good bet that he wants you to maintain this equipment the right way. If publications such as LO's, TM's and the rest help you to perform this maintenance, it's another good bet that your CO wants you to have them.

Now, turn to para 16, and you'll see that you submit your requisition on DA Form 17. An SOP on submitting these types of requisitions is usually set up by a post or installation commander. It'd also be a good idea to become familiar with your local SOP.

That's it. Do these things and you shouldn't have any trouble getting an LO—or any other type of publication you really need.

*Half-Mast*

## TACH-LESS TACTICS

*Dear Half-Mast,*

*Since the M48 tank has no tachometer, you need to do some good estimating of your engine speed now and then.*

*Hear some guys are using the main engine generator warning light to get an indication of the right RPM for normal idle. They say the generator cuts in—and the warning light cuts out—at about 850-RPM.*

*Is this a reliable method?*

*SP1 M. E. L.*

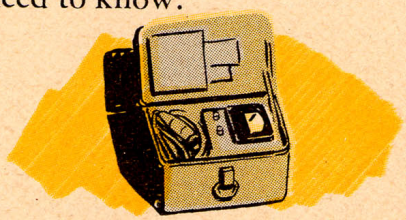
Dear Specialist M. E. L.,

No. Leaves too much to chance.

The RPM at which that warning light goes off will vary with the condition of your batteries, electrical wiring and the generator itself. Also, some 48's are equipped with 300-amp generators —and on these babies the warning light'll go off at around 650-RPM.

Your best bet's to practice judging engine speeds, and get the "feel" of your engine.

Naturally, you'll use the electric tachometer from your second echelon tool set when adjusting your carburetor for low idle (650-RPM). It can also help you get acquainted with the other speeds you need to know.



A li'l practice and you can tell just where to set your throttle for warm-up or high idle (about 1000-RPM). Like your TM says, never let 'er run long at low idle. Fouls your plugs fast.

And while the tach's hooked up, rev up to around 1800—the right RPM for your magneto checks—and learn how she feels at that speed.

'Course, to check your mags without a tachometer, you'll get best results by using an "outside" man. Have him bend his best ear to the exhausts for signs (and sounds) of missing, as you flip the mag switch to fire first one bank and then the other.

*Half-Mast*

## SWITCHES SWITCHED

*Dear Half-Mast,*

*How come they eliminated the circuit-breaker in the headlight circuit from the Reo Trucks? Fig 193 in TM 9-8022 (Dec 1954) shows two breakers left off the later trucks. Why? I'm having lots of burned-up switches on these buggies, and I feel that if they still had a circuit-breaker it would save time and money.*

*Capt O. D. P.*

Dear Capt O. D. P.,

They eliminated that dashboard-mounted circuit-breaker in the later production Reos, but the headlight circuit is still protected. The new switch, Ord Stock No. G 749-7368702, has a circuit-breaker incorporated in it.

Now watch this one carefully, on accounta you're gonna have to fight with some supply people, mebby. On accounta your switch is in the Ord 8 SNL G-742. (It'll be in the new Ord 7 G-742 when that comes out, and it's already in the Ord 7 G-741.) But, the SNL's all say to issue switch No. 7729684 until stock is exhausted, then issue switch No. 7355600 until that is used up, and **then** issue switch No. 7368702. This is fine **if** your truck has two circuit-breakers on the firewall, just to the left of the generator regulator.

But if you have one of the new trucks with only one circuit-breaker, you **gotta** have switch No. 7368702 or you won't have any protection for your headlight circuit. So be sure you get the correct switch. Or, like it tells you in para 226, page 399, TM 9-8022, see your Ordnance people.

For interchangeability of these switches see TB Ord 533.

*Half-Mast*

## POT LUCK

*Dear Half-Mast,*

*Somebody's going jug-happy around here, and it may be me. Every time I order a carburetor for an M75 AIV, I'm issued one for an M41 tank instead. They try to tell me these juice-pots are interchangeable, even though the SNL's show 'em with different model and stock numbers.*

*What's the story?*

*SFC H. G.*

Dear Sergeant H. G.,

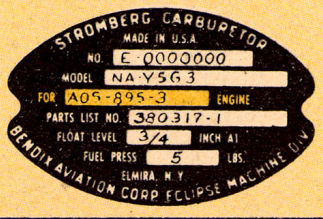
Sound's like somebody somewhere's got their jugs crossed.

Those carbs listed for the M41's are designed for supercharged engines, and

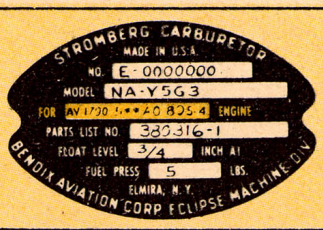
they won't work right on an un-blown job like your M75. It may go on OK. And your engine may run. But it'll not perform up to snuff.

Likewise, a supercharged engine like the AOS-895-3 (in the Bulldog tank) needs the jug that's designed for it.

A close check of the carb nameplate will tell you what engine or engines it can be used on. You're stretching your "pot" luck too far if y'try it on any other.




You'll find this nameplate on carburetors covered by Stock Nos. G251-7346585 and G251-7416587. They're for the AOS-895-3 engine only.




This nameplate will be on carburetors covered by Stock Nos. G244-7521189 and G262-7403299. They're for AO-895-4 and all AV-1790 Series.

Here's a chart that gives you the lowdown on carb interchangeability and stock number data for your buggies with Continental engines.

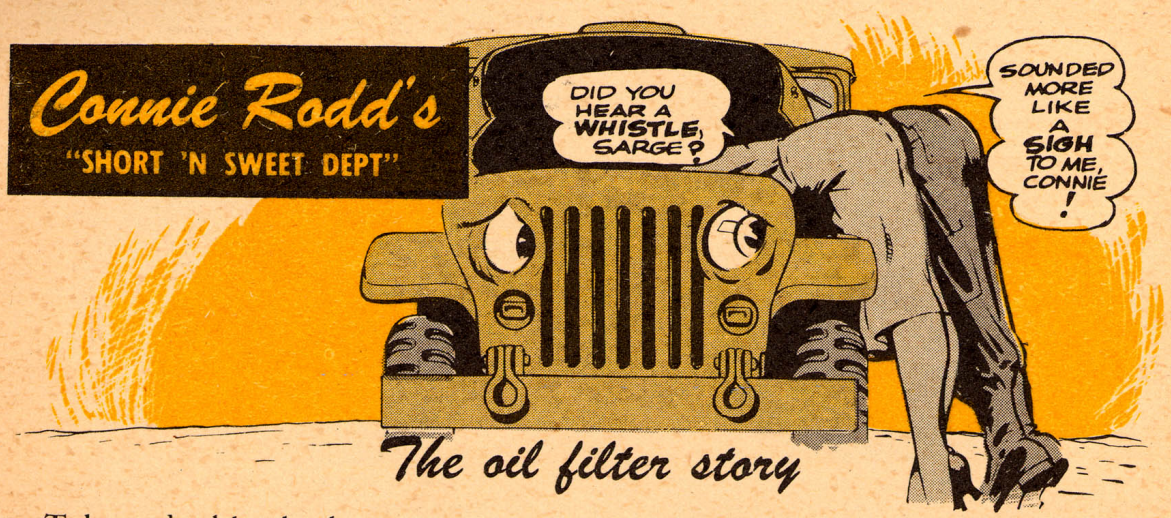
| FOR THESE VEHICLES | M46, M46A1, M47, M48, M75 (T18E1) | M8E1, M41 (T41E1), M41A1 (T41E2), T98E1, T99E1 |
|---|---|---|
| WITH ENGINE MODEL | AO-895-4 and all AV-1790 Series | AOS-895-3 |
| *USE CARBURETOR STOCK NO. | G244-7521189 (has ¼" studs for mounting air intake elbow: 1790 Series thru Engine Serial No. 4948; AO-895-4 thru Engine Serial No. 242.) | G251-7346585 (has ¼" studs for mounting air intake elbows: thru Engine Serial No. 1939.) |
| | G262-7403299 (has 5/16" studs for mounting air intake elbow: 1790 Series after Engine Serial No. 4948; AO-895-4 after Engine Serial No. 242.) | G251-7416587 (has 5/16" studs for mounting air intake elbow: after Engine Serial No. 1939.) |

*Note: in case some of you cool cats have your other eye on TB Ord 513 (28 Apr 53) which says something a little different on the subject—don't holler yet. The TB is being revised.

You'll note that earlier engines took ¼-in studs for mounting the air-intake elbows; later ones use 5/16-in studs. The chart shows the break-point (engine serial number) and the stock number you use in each case.

If your requisition brings the right type pot for your engine but the wrong size studs, you can use it. Either get studs to fit the holes or have Ordnance make holes to fit the studs.

*Half-Mast*

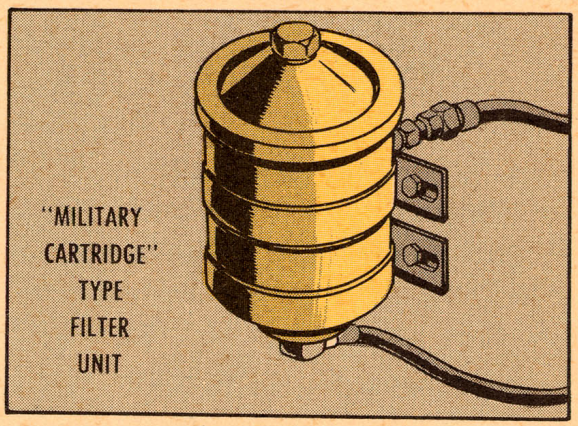



## The oil filter story

Take a double check on your Jeep's oil filter. There are two kinds—one that's called a Cuno oil filter and the other a cartridge-type filter.

The Cuno (Ord Stock No. G740-7375060) is a multiple-disk filtering unit that's worked by giving it a twist once a day—like every time you check the oil. This lets all that glob that forms on the disks fall to the bottom of the filter case.

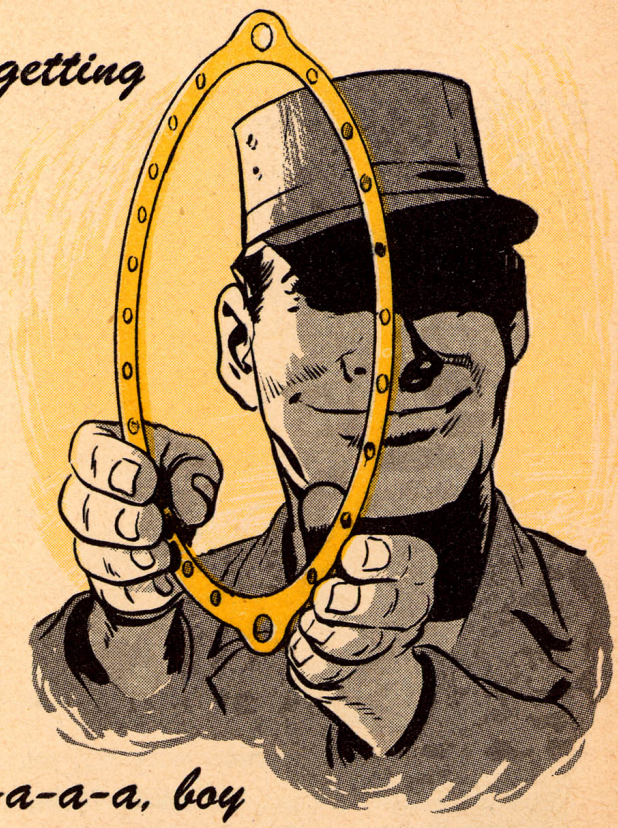
Now, the way to get that junk out of the filter case is by removing the drain plug from the bottom of the case and draining the stuff out every 1,000 miles, like it tells you in your LO. When every 6,000 miles rolls around, take the filter off, clean it and give the filtering element a good look-see. If the head, which holds the disks, is damaged, replace it—this is the only thing you ever replace in the Cuno.




The cartridge-type filter (Ord Stock No. H016-0540462) is the kind you'll find on most civilian cars. When you go to replace this one, the element comes out and a new one goes in—usually every time you drain your crankcase—every 6,000 miles.

If your Jeeps with the Cuno filter keep needing engine repairs, why not ask your Ordnance officer if you can put on a "Military Cartridge" type filter unit.

## *Gasket getting*

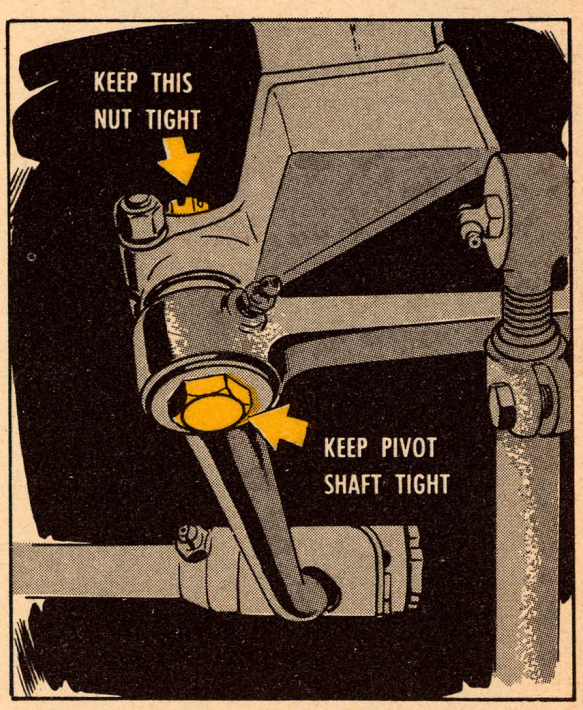


You Hydra-Matic cats will be glad to hear that from now on you'll be able to order that torus cover to flywheel gasket (Ord Stock No. G749-7411515) as a separate item.

Up till now you could only get that gasket by asking for the transmission repair kit (Ord Stock No. G749-7410958). And even then you couldn't be sure of getting it, because the kit's a third-echelon item.

But, things have changed. The gaskets now a second echelon part, and the revisions to your G749 SNL's will show it as such.

## *Who-o-o-o-a-a-a, boy*




When something goes kaphoophey in a vehicle, usually the little things made it that way.

Take that steering in your Jeeps. Unless those controls are taken care of just right, there's a good chance a guy driving the vehicle will find himself up a telephone pole. And those controls can't be doctored right unless a little preventive maintenance is given to that steering bellcrank pivot shaft.

You'll find this shaft just back of the first cross-member in the Jeep. It has a self-locking nut and a clamping bracket with bolt. This nut and bolt have to be good and tight or that steering will get loose—so loose, in fact, that you'll think you're sitting on the wrong end of a bucking bronc.

It's a good idea to tighten up on this nut and bolt every time you lube your bellcrank—every 1,000 miles (C service). If the self-locking nut has lost its tension and just backs off the bolt, better get your vehicle back to Ordnance and have them look it over.

## Tch, tch

I'm really surprised at some guys. They know that TM 9-1870-1 on pneumatic tires came out in February of 1955 and that's the manual they're supposed to be using for wheeled vehicle tires instead of TM 31-200 (Apr 43) which has been rescinded by DA Circular 310-20 (23 May 55).

But because TM 9-8014 (Apr 55) on the G758 ¼-ton Jeeps, TM 9-8030 (May 55) on the G741 ¾-ton trucks and TM 9-8028 (June 55) on the G744 5-ton trucks all say to use TM 31-200, they're using it. Just takes a little horse sense.

The next time these three manuals are revised, they'll tell you to use TM 9-1870-1. But, meanwhile, why not make a note where it says TM 31-200 under item 27 of the Organizational Mechanic or Maintenance Crew C and D Preventive Maintenance Service tables of these manuals to refer to TM 9-1870-1.

## The idjit's a midget

When you go to take the fuel-pump-to-carburetor line off both the G742- and G749-series 2½-ton trucks, be extra-special careful that the fuel filter strainer doesn't slither out the base of the carburetor into a chuck hole.

That midgety strainer (Ord Stock No. G742-7539068) is used to keep fine dirt and grit out of the carburetor. It's awful easy to lose because of its size.

If you should happen to lose one, put your order in to supply—the quicker the better, because it's a higher echelon part and may take some time reaching you.

Oh, yeah. Although the same fuel filter strainer is used in both the G742 and G749 carburetors, those carburetors aren't interchangeable. For G749 vehicles, use carburetor G749-7411781; for the G742 trucks you can use either carburetor G742-7368643 or carburetor G742-7368717.

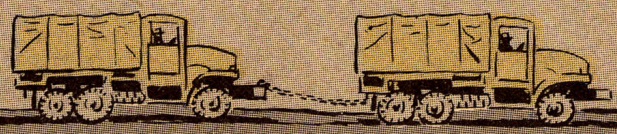
# *Hydra-Matic hooplas*

The things that turn an amateur into a pro are those little extra knacks. Same thing holds true when driving your Hydra-Matic 2½-ton truck—you can either be an amateur or turn professional by noticing certain things.

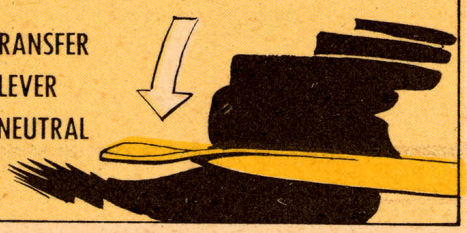
For example, get in the habit of counting the change of gears as the transmission shifts itself. From a dead stop, you'll be able to feel three changes—from first to second, from second to third and from third to fourth. (When making these tests it's best to use minimum throttle pressure.) If you miss any of these changes, you know you've got a sick transmission. A number of things could be wrong, so let your unit mechanic check it out. If he can't fix it up, he'll send the truck back to Ordnance.

## WHEN BEING TOWED, DON'T FORGET TO:

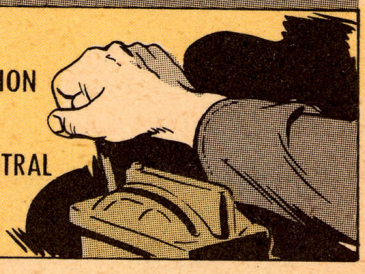
### FOR SHORT HAULS



1. PUT TRANSFER CASE LEVER INTO NEUTRAL

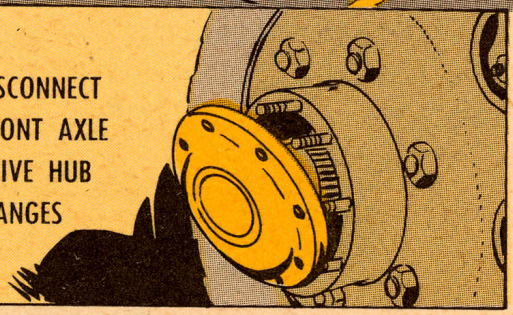


2. AND TRANSMISSION SHIFT CONTROL LEVER INTO NEUTRAL

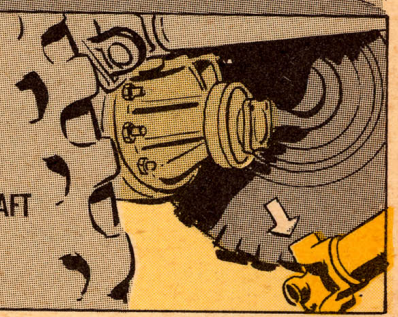


### FOR LONG TRIPS LIKE 10 MILES OR MORE ALSO ...

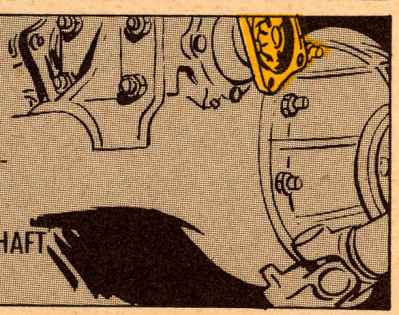
3. DISCONNECT FRONT AXLE DRIVE HUB FLANGES



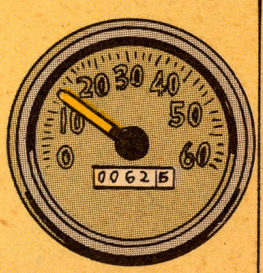
4. DISCONNECT TRANSFER-TO-PILLOW BLOCK PROPELLER SHAFT ASSEMBLY



5. DISCONNECT TRANSFER-TO-FORWARD-REAR-AXLE PROPELLER SHAFT ASSEMBLY

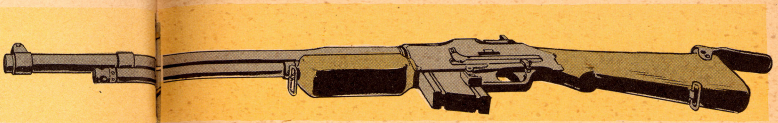


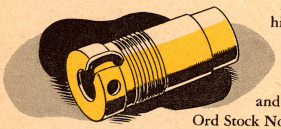
6. DON'T LET SPEEDOMETER RUN UP OVER 15-MPH



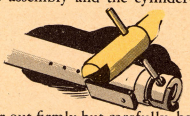
# ARMAMENT

# Your BAR up to PAR?



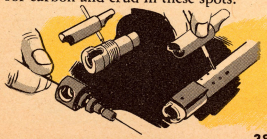


A guy who's up to snuff on keeping his Browning Automatic Rifle combat-ready knows there's one place to look for a lot of trouble—the gas-cylinder-assembly. The sweatin' and frettin' is in disassembly and assembly because of tight-fitting lock-pin Ord Stock No. A004-7266091. Also the job of keeping carbon out of the 'leventeen gas holes in the assembly and the cylinder-body. Be careful with that lock-pin 'cause it's easy to damage. To drive it out, place the barrel and gas-tube against a solid rest and put the point of drift of the gas-cylinder cleaning tool on the pin.



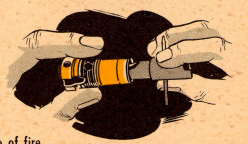
Tap her out firmly but carefully, because once your pin gets bent it's no good. If you don't have the cleaning tool (Ord 7 SNL A-4), don't use a nail or sharp instrument that could spread the lock pin and ruin it. Get something like a small blunt punch.

Most important thing about cleaning the gas-cylinder-assembly is not to do it half-fast. Do it fast, quick and **immediately after firing,** and get rid of all the carbon. When you're not firing, keep the assembly lubed lightly like the rest of the weapon. Let carbon build up in the assembly and it'll clog up the gas ports and eventually freeze the piston. The stuff's easy to clean out right after you fire, so that's when you do it. With the gas-cylinder disassembled, look for carbon and crud in these spots.



**1.** Barrel gas-port, three gas-ports in the gas-cylinder-body, relief-vent in the regulator, and six gas-escape-ports in the gas-cylinder-tube. If that relief-vent in the regulator is plugged, a fine piece of wire will open it. Use the point of drift on the cleaning tool for the gas-ports.





**2.** Cylinder-body-recess where the piston fits. If carbon builds up and hardens in that hole, you'll need the recess-cutter of the gas-cylinder-cleaning tool to ream her out, but be careful. Hard scraping in there for too long can wear down the inside of the cylinder-body. That'll make the piston a loose fit, which mean's some of the gas that's supposed to drive the piston backward will escape, cutting down your rate of fire.

**3.** Face of the piston and between piston rings. Scrape the face with the front cutting edge of the cleaning tool. Use the point of drift between the rings. Again be careful of wear-and-tear caused by metal-on-metal scraping.

**4.** Gas-cylinder-tube. Soak a cloth in bore cleaner and tie it to the middle of string. Pull it back and forth in the tube.

Use rifle bore cleaner (warm soapy water as second choice) to take carbon and deposits off all parts of the gas-cylinder-assembly. When they're clean, wipe 'em dry and oil lightly.

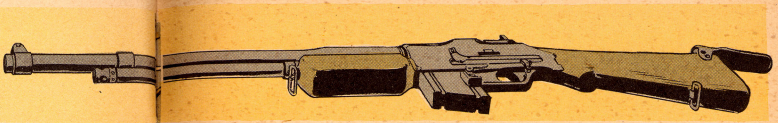
Maybe you're taking care of that BAR like it's your very own, and she still won't put out with the firepower. When the rifle is 'way off from the 550 rounds per minute she's supposed to put out on the fast cyclic rate of fire, the trouble's usually with one or both of two things—worn-down piston rings or gas-cylinder-body.

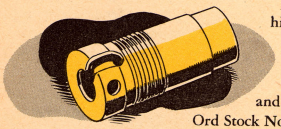
And could be you're having trouble with the body that's impossible to figure out. You see, a couple years ago there were truckloads of brand-new cylinder-bodies floating around that were a few thousands of an inch too big for the piston. Wha' hoppens? The piston isn't getting enough kick to the rear for proper recoil because gas escapes around it. Those too-big cylinder-bodies were supposed to be reclaimed. But some of them still might be around, and could be you have one of them.

The same thing can happen if the piston rings are worn. Not enough kick, not enough piston movement for good recoil. If you suspect your BAR's got either of these troubles, get it to your Ordnance support unit. They have gages to check the cylinder-body and piston. It's a good bet that when cyclic rate of fire falls off, the foul-up is in the gas-cylinder-assembly or the piston.

# ARMAMENT

# Your BAR up to PAR?





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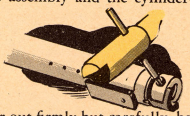

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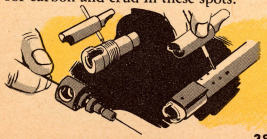

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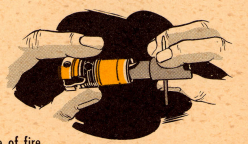

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**3.** Face of the piston and between piston rings. Scrape the face with the front cutting edge of the cleaning tool. Use the point of drift between the rings. Again be careful of wear-and-tear caused by metal-on-metal scraping.

**4.** Gas-cylinder-tube. Soak a cloth in bore cleaner and tie it to the middle of string. Pull it back and forth in the tube.

Use rifle bore cleaner (warm soapy water as second choice) to take carbon and deposits off all parts of the gas-cylinder-assembly. When they're clean, wipe 'em dry and oil lightly.

Maybe you're taking care of that BAR like it's your very own, and she still won't put out with the firepower. When the rifle is 'way off from the 550 rounds per minute she's supposed to put out on the fast cyclic rate of fire, the trouble's usually with one or both of two things—worn-down piston rings or gas-cylinder-body.

And could be you're having trouble with the body that's impossible to figure out. You see, a couple years ago there were truckloads of brand-new cylinder-bodies floating around that were a few thousands of an inch too big for the piston. Wha' hoppens? The piston isn't getting enough kick to the rear for proper recoil because gas escapes around it. Those too-big cylinder-bodies were supposed to be reclaimed. But some of them still might be around, and could be you have one of them.

The same thing can happen if the piston rings are worn. Not enough kick, not enough piston movement for good recoil. If you suspect your BAR's got either of these troubles, get it to your Ordnance support unit. They have gages to check the cylinder-body and piston. It's a good bet that when cyclic rate of fire falls off, the foul-up is in the gas-cylinder-assembly or the piston.

# NIKE NOTES

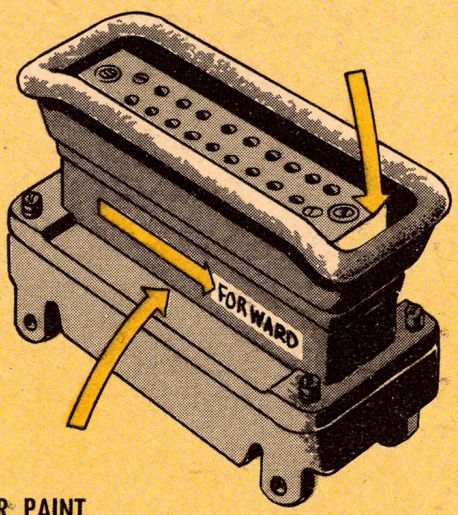
## PLUG TROUBLES

Getting ground power plug Y005-8001632 on the Nike system in backwards is like stepping on the gas when you want your car to stop at a red-light ... **ka-boom.** And it's much easier to do.

A reverse plug raises cain, so always double-check before sticking it in. To make things easier, put a dot of paint on the male and female plug connectors and then match up the dots when you're putting the plug in.

Better also give that plug a check for internal corrosion, which allows carbonization of the base where the pins and springs are anchored. Sometimes when the plug is being filled with DC-4a, electrical insulating compound (52-C-3096-790), it may only fill the hollow area at the back of the receptacle area. Sometimes it doesn't penetrate to the springs and pins because of the bakelite blocks which fit against the inside of the receptacle.

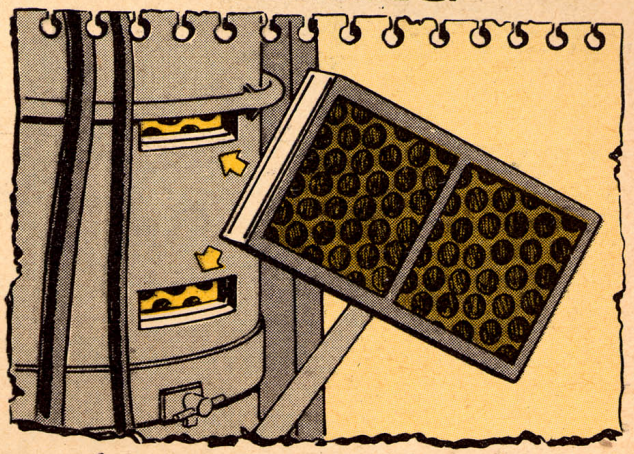
PUT DAUB OF PAINT **HERE** AND ON SAME SIDE OF MALE PLUG




OR PAINT ARROW AND "FORWARD" ON SIDE OF MALE AND FEMALE PLUGS

To make sure the DC-4a fills the ground power plug correctly, use gun assembly, compound ignition sealing (J019-8163721) and fill the entire plug with DC-4a through fitting 1452. Loosen the index studs and depress the contacts until the compound oozes out around them. Then tighten the index studs. Service the plug with DC-4a each time a new missile is installed on the rail. After each servicing, check and double-check before putting the plug in.

# NO AIR FILTER LAUNDERING



The latest on cleaning air filters (Ord Stock No. F342-7605703) on the equipment system of the Nike guidance and control equipment makes for better preventive maintenance and calls for less work by you. Sounds crazy, but it's true.

Here 'tis: When the "Dustops" are dirty, just throw 'em away and get a new one. They're cheap, and you're authorized enough to keep new ones on hand. A new filter protects equipment better than a used one that's been cleaned.

It's nix on laundering "Dustops." If a filter must be cleaned because you don't have a new one on hand at the moment, use a vacuum cleaner.

**On The Nike Launcher**

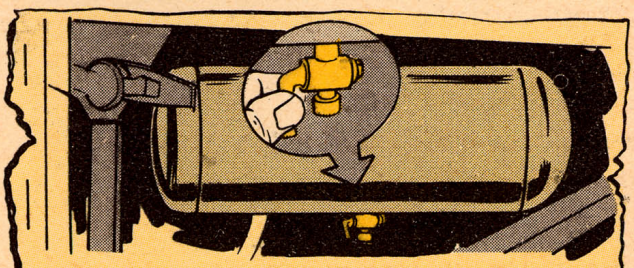
# GIVE YOUR AIR BRAKES A BREAK

Ever forget to write the gal friend a letter for a long time and then try to get things started the way they usta be? When you start operating again, she doesn't behave the same way.

That's the deal with the air brake equipment on the base of the Nike Launcher. When the launchers are stationary for long stretches, lack of use could cause the brakes to fail when they're operated again.

If the launcher is going to stay emplaced for a long time, work over the air brakes like it says on the right to keep them ready for action.

Before the brakes are used again, check 'em out by making sure the drums and components are clean and in good shape. Remove the emergency relay valve diaphragm and look it over for cracks and excessive wear—replace it, if necessary. Then bleed and adjust brakes as required.



1. Drain the air reservoir. Make sure all lines are free of moisture, and then close the drain cocks. Tape drain openings and air connections with non-hygroscopic tape.

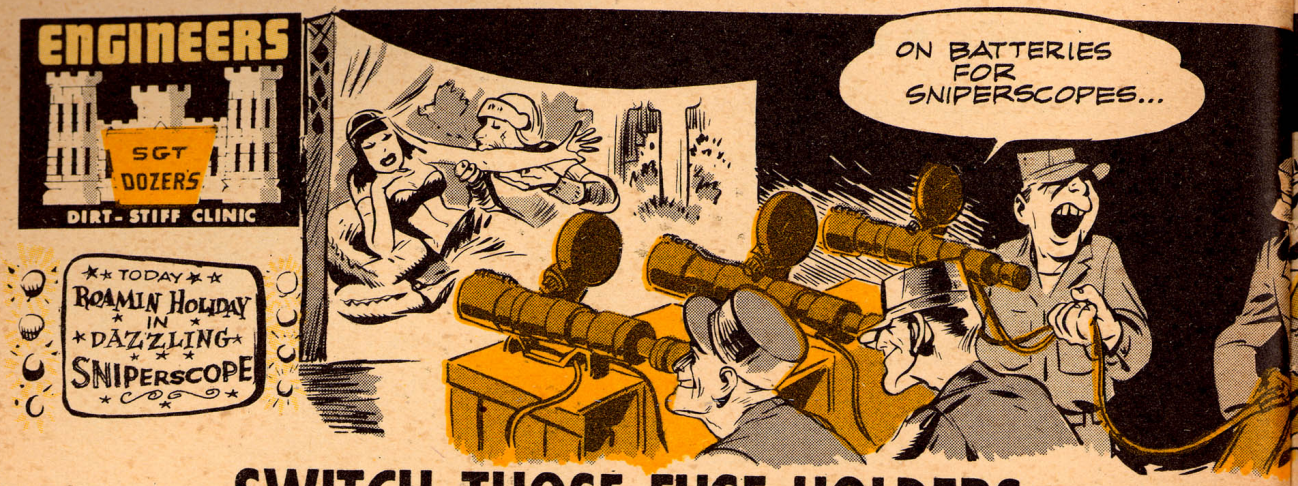
2. Remove brake drums and brake components and clean 'em. Check cylinders for leakage, undue wear, rust, or corrosion.

3. If you've got rubber dust covers on the cylinders, take 'em off and tape the cylinder ends with non-hygroscopic tape (FSN 7510-00-19068).

4. Inspect brake linings for security and bad wear.

5. Spray lacquer-resisting synthetic primer 52-P29545 on the backing plate surface and all attached parts, interior of brake drums, and surfaces of brake shoes. Go easy with the primer—don't use too much—and don't get any on the brake lining.

6. Assemble and fill the system with hydraulic brake fluid (Ord Stock No. 51-F-360-725).




# SWITCH THOSE FUSE HOLDERS

*Dear Sgt Dozer,*

*We just got the new-type Sniperscope mounted on the carbine and have been having some trouble with the batteries and battery charging racks. With the equipment issued, there are two types of batteries, but they have the same stock number, model number, date of manufacture, manufacturer, contract number, purchase order number, etc. One type has the two fuseholder caps sticking out from the side of the case, while the other has the fuse holder flush with the case.*

*The one where the fuse holders are sticking out won't fit into the charging rack, because the rack's built so the battery holder and separator for each battery are so close together. This keeps the battery from going in far enough to make the necessary contact through the banana plug for charging.*

*The batteries with the fuse holder flush are OK. But with the batteries mixed up, a unit might get all batteries that they can't charge. What can I do to bail myself out of this difficulty?*

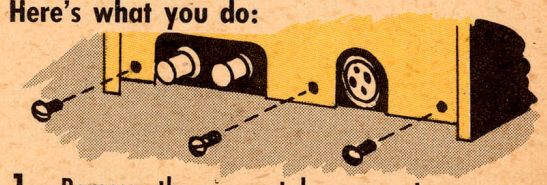
*CWO H. I. G.*

Dear CWO H. I. G.,

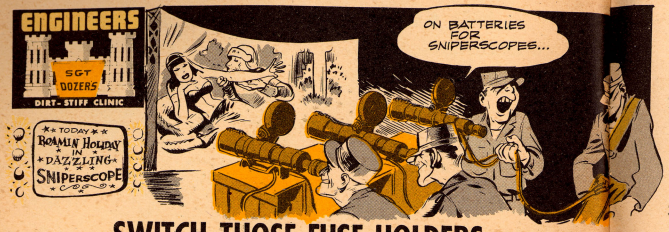
There's no official MWO that'll tell you how to whip this problem, but I can give you a recommended procedure that works like a charm. It's a job for organizational maintenance or higher. An experienced mechanic can do the work and it'll take him about 20 minutes per battery case.

You'll need a soldering iron and screw driver for the task. The only new parts you'll have to have are two screw-type fuse holders to replace the twist-type jobs. Those new holders carry Part Numbers 10525-1 and 10525-2. They're identical except 10525-2 is marked "spare." They're available now through normal Engineer repair parts supply channels from the Engineer Section of Columbus General Depot, Columbus, Ohio.

**Here's what you do:**



**1.** Remove the six metal screws at the bottom of the battery case to allow the base plate to drop. See TM 5-9342A.

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**Here's what you do:**

**1.** Remove the six metal screws at the bottom of the battery case to allow the base plate to drop. See TM 5-9342A.

**2.** Also remove the two screws holding the base plate cover.

**3.** Next, remove the old "spare" fuse holder and replace it with 10525-2.

**4.** Then unsolder the wires attached to the other fuse-post, and remember their positions so you can replace 'em properly.

**5.** Remove the twist-lock-type fuse holders and replace with the screw-type.(10525-1).

**6.** Resolder the wires on Part No. 10525-1 and be certain you get a tight connection.

After you assemble the battery case, you'll find that it'll fit into the battery charging rack with no trouble. Incidentally, don't forget that these batteries use a connector instead of banana plugs. The banana plugs were provided for the now superseded M-2 sniperscope.

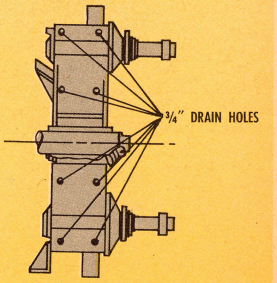
Sgt Dozer

**That Pioneer Rock Crusher's...**

## HOLDIN' ITS WATER

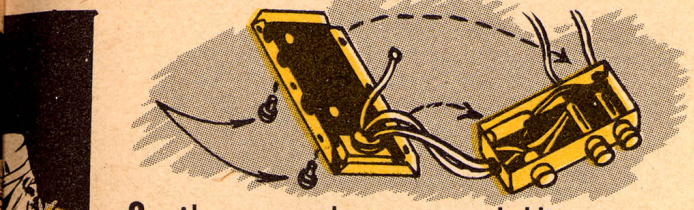
The tandem-wheel-housing of your Pioneer Model 33 rock crusher isn't supposed to be a water reservoir, but a lot of 'em are serving the purpose. It seems that water is continually finding its way into this housing. And about the only way you can get it out is with a suction gun. That in itself is about an hour's job.

The best way to keep the housing clear of water is to make sure that $H_2O$ goes right through like a dose of salts. You can do this by having four ¾-in holes drilled in the bottom of each side of the tandem-wheel-housing like it shows in the drawing below.



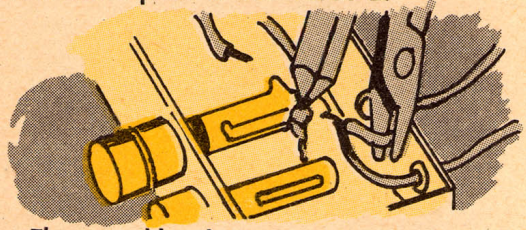

TOP VIEW

Better get on this 'un right away, 'cause that water'll cause the tandem wheel housing to rust. And that's no good in any language.

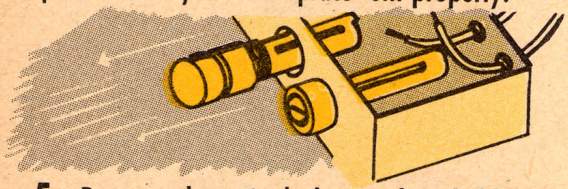


**2.** Also remove the two screws holding the base plate cover.

**3.** Next, remove the old "spare" fuse holder and replace it with 10525-2.



**4.** Then unsolder the wires attached to the other fuse post, and remember their positions so you can replace 'em properly.



**5.** Remove the twist-lock-type fuse holders and replace with the screw-type.(10525-1).

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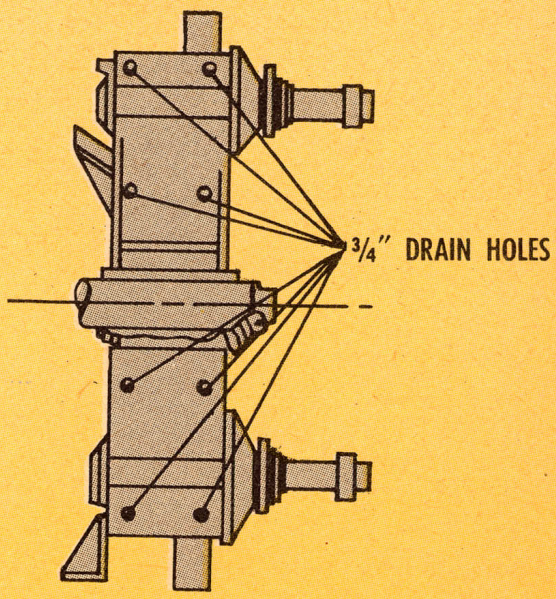


TOP VIEW

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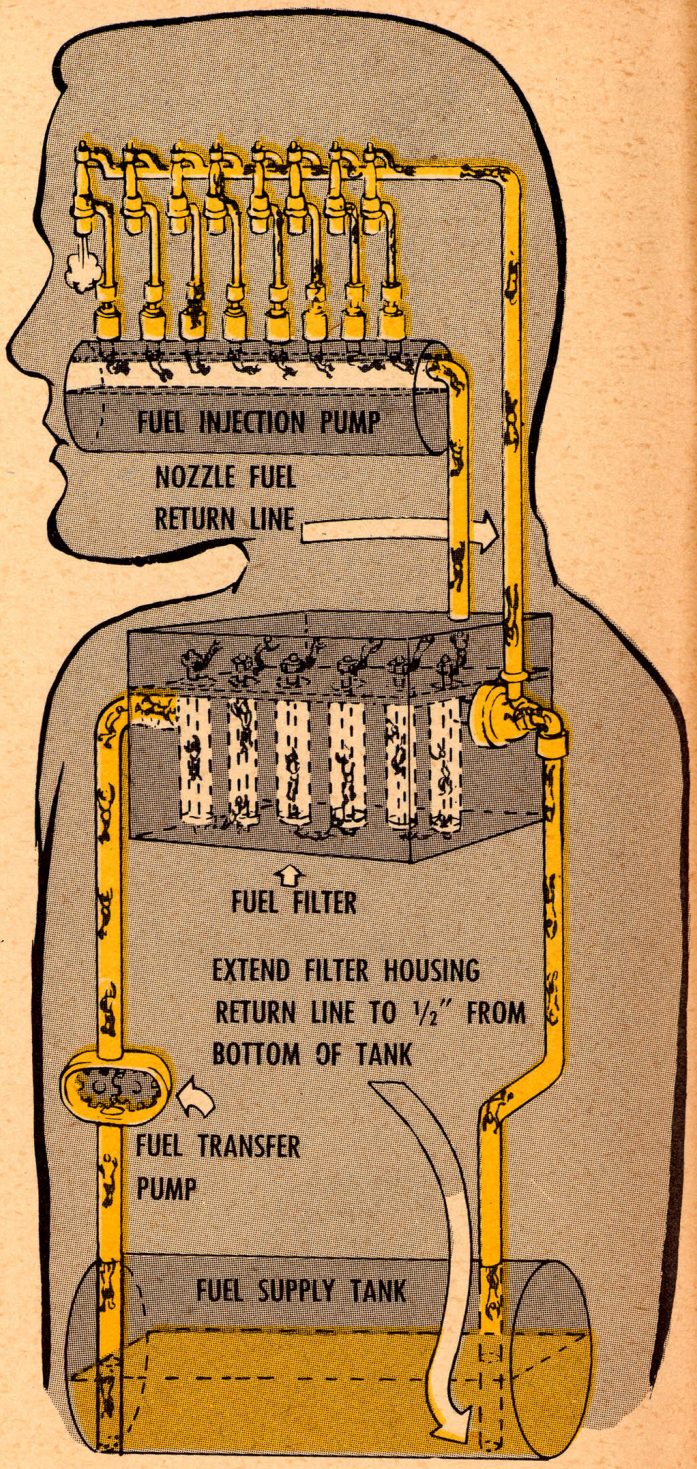
Is Your Caterpillar Diesel Engine...

# LOSING ITS PRIME?

Been having trouble with the fuel injection pump losing its prime on the D17000 Caterpillar diesel engine? This'll happen in cases where the fuel supply tank's located below the engine. The Lima Model 802 Crane-Shovel is a good example.

If the fuel injection pump loses its prime (or becomes air bound) when left idle for eight hours or more, the air leak causing the loss of prime generally occurs at one of two places in the fuel system.

Now, shift your eyeballs to this schematic drawing of the Caterpillar Model D17000 engine fuel injection system. If the transfer pump leaks fuel back through the gears, air'll enter from the filter housing return line leading to the supply tank, past the pressure relief valve. Air will also get into the injection nozzle fuel return line if it's not sealed right at the injection nozzle connections.




You can get around this problem by making sure the fuel filter housing return line—that's the one that runs from the pressure relief valve to the supply tank—is within ½-in of the bottom of the fuel supply tank.

By doing this, you're not allowing any air to be drawn into the fuel filter housing whether the transfer pump's leaking back through the pump gears or not. Instead of leaking air past the pressure relief valve and letting the fuel drain down from the injection pump sump, the now-submerged fuel line will allow the fuel to equalize any difference in pressure caused by leakage past the transfer pump gears.

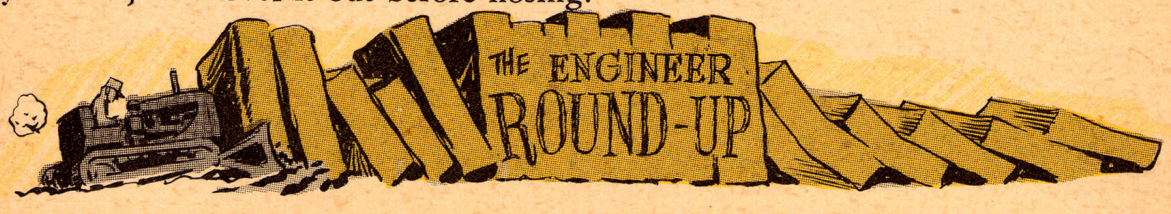
If this doesn't solve your problem, you ought to check all soldered connections on the nozzle return line. Also, all copper gaskets, Part No. 140/1F1569, should be replaced on all injection nozzles.

# SUMP PUMP SAVER

Here's a good way to keep from getting hosed off when you're hosing down. Some of those sump pumps that were bought locally for use at Nike sites have been catching more than their share of the wear and tear.

Most of the troubles come from failing to sweep the sand and grit out of the Nike pits before hosing 'em down. Once sand and grit get into the pump, they really chew it up.

So remember, by sweeping those pits out good before hosing 'em down, you'll be adding to the life of your pump and keeping the sand and grit out. Better yet, how about putting a riffle in the elevator pit drain that'll trap the sand. Then you can just shovel it out before hosing.




## Here're some more pubs you can add to your pile

### TECHNICAL MANUALS

**5-764** Elec mtr & generator repair, 15 Dec 55

**5-5251** Engine, gas, air-cooled, Kiekhafer Models KB7W and KB7W-1, 8 Feb 56

**5-5331** Gen set, elec, port, dsl-drvn, Consolidated Dsl Mod 1775, 23 Dec 55

**5-9147-3** Gen, carbon dioxide, semi-trlr mtd, Girdler Mod 32-4027, 6 Feb 56

**5-5062** Compressor, air skid-mtd, Schramm Mod 60, 14 Dec 55

**5-5173** Engine, dsl, Buda Mod 6DA-844, 23 Dec 55

**5-6400-1** Alidade, min, telescopic, David White Mod 9082, 27 Feb 56

**5-6400-2** Level, dumpy, Engineer, David White Models 7080 & 7080A, 24 Feb 56

**5-9128-3** Shop, mobile, GP Repr Set #1, hvy, 12-ton semi mtd, Couse Mod MED 3 Jan 56

**5-9211** Trlr, full, lo-bed 60 ton, Fontaine Mod C-16-60-SP, 16 Jan 56

### TECHNICAL BULLETINS

**5-5041-1** Comp, air trlr mtd, dsl drvn, Leroi Mod 600D2, 24 Feb 56

**5-5273-1** PMS, gen set, elec, port, dsl-drvn, Buda Mod DCS-165-A3X-CE, 23 Feb 56

**5-5381-1** PMS, gen set, port, dsl-drvn, Atlantic Mod 120 GS, 17 Feb 56

**5-5098-1** PMS, comp, air, stat, mtr-drvn, American Brake Shoe Mod B-140-U, 29 Feb 56

**5-5141-1** Gen set, elec, port, dsl-drvn, Stewart-Stevenson Mod 4GD-605, 10 Feb 56

**5-9107-1** Gen, oxygen & nit, mtr-drvn, Air Products Mod A2, 13 Feb 56

### LUBRICATION ORDERS

**5-2124** Pump, horiz, 25 GPM, 2-in exhaust, Worthington Type VC, 7 Feb 56

**5-3510** Truck, fire FWD Auto Co Mod FR 50 T, 7 Feb 56

**5-5053** Gen set, elec, port, gas-drvn, Reiner Mod GGC-30AC, 6 Feb 56

**5-5141** Gen set, elec, port, dsl-drvn, Stewart-Stevenson Mod 4GD-605, 13 Feb 56

**5-7060** Gen set, port, gas-drvn, searchlight, w/case, Delco Mod 4-B-12, 7 Feb 56

**5-9487** Air cond unit for camera trk dk rm, 6150 BTU per hr, Universal Color Project 110-A, 13 Feb 56

**5-5041** Comp, air, trlr-mtd, dsl-drvn, LeRoi Mod 600D2, 16 Feb 56

**5-5098** Comp, air, stat, mtr-drvn, American Brake Shoe Mod B-140-U, 21 Feb 56

**5-5260** Gen set, elec, port, gas-drvn, Hollingsworth Mod CE-100-AC-WK4, 13 Feb 56

**5-5273** Gen set, elec, port, dsl-drvn, Buda Mod DCS-165-A3X-CE, 15 Feb 56

**5-5381** Gen set, port, dsl-drvn, Atlantic Mod 120 GS, 15 Feb 56

**5-9288** Pump, cent, for gasoline, Byron-Jackson Mod PUP w/GM 270 engine, 6 Feb 56

**5-9395** Pump, rechrg, carbon dioxide, Kiddie Models 4211-1 & 4306-1, 7 Feb 56

**5-9584** Conveyor, drag type, car unldr, Godfrey Mod SP B-2, 16 Feb 56

### MODIFICATION WORK ORDERS

**MWO Eng 1129-1** Distributor, wtr, trk-mtd, 1000-gal, Vic Mod, 14 Feb 56

#### ENG 7 & 8's

**1023** Asphalt Plant, Standard Stl Mod 4131, 2 Feb 56

**2033** Pump, cent, Gorman-Rupp Mod 3402, 10 Feb 56

**2051** Pump, deep well, Peerless Hi-Lift Mod 53, 2 Feb 56

**9244** Ice maker, gas-drvn, Carrier Corp Mod 7K4, Victor Products Co, 10 Feb 56

**9451 C1** Trlr, dump, LeTourneau Mod W-210 Tournatrailer, 2 Mar 56

**1179** Ditching Machine, ladder type, crwlr-mtd, Parsons Mod 221-2A, 6 Feb 56

**5396** Comp, air, trlr-mtd, Worthington Mod 500, 3 Feb 56

#### ENG 7, 8 & 9's

**5012 C1** Gen set, elec, port, gas-drvn, Hollingsworth Mod JH-3, 2 Mar 56

**5033** Freq Conv, Hollingsworth Mod JH 30-FCU, 14 Feb 56

**9011** Elevators, Wayne Pump Types B&C, 27 Jan 56

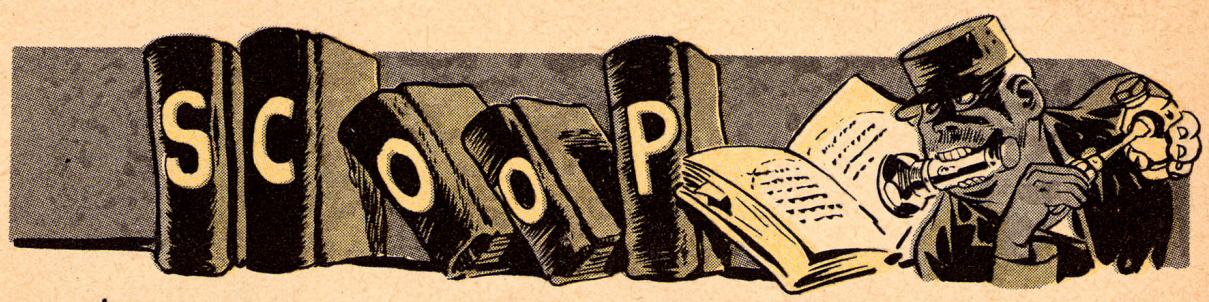
**9432** Pump, cent, Barnes Mod 1500G, 14 Feb 56

**5035-1** Freq Conv, Marathon Elec Mod 101M91, 21 Feb 56

**5035-2** Freq Conv, Marathon Elec Mod 101M92, 20 Feb 56

**5274** Gen set, port, dsl-drvn, Cummins Mod NHRSGA-601-150 PD-384, 3 Feb 56

**9163** Heater, gas burning, Hunter Mod UH-58-SC-1, 5 Mar 56




# HERE'S A LIST OF ADDITIONAL OFFICIAL PUBLICATIONS ON ORDNANCE EQUIPMENT WHICH ARE OF INTEREST TO A LOT OF YOU.

## SUPPLY MANUALS

**ORD 8 SNL F-356 Sec 1** Finder, range, M12 (T41, T41E3) Dec 55

**ORD 8 SNL F-384, C3** Sight, peris T42 Jan 56

**ORD 8 SNL G-252** Tract, full track, HS M8A1 Sep 55

**ORD 9 SNL G-252** Tract, full track, HS M8A1 Sep 55

**ORD 7 SNL G-254, C2** M48, M48A1, M48C Tank; trainer, tank, gun: 90-mm gun, M20 Nov 55

**ORD 7 SNL G-503, C1** Trk, util: ¼-ton 4x4 (Ford, mod GPW; Willys, mod MB) Nov 55

**ORD 7 SNL G-508, C1** Trk, 2½-ton, 6x6 and 6x4 (GMC) trk, bomb svc, M27, M27B1 Nov 55

**ORD 7 SNL G-742** Trk, cargo: 2½-ton M34, M35, M44, M45, M46, M47, M48, M49, M50, M59, M108, M109, M275, V17A/MTQ (Sig), V18A/MTQ (Sig) Nov 55

**ORD 7 SNL G-792** Trk-Tract: 10-ton, 6x6, M123 Nov 55

**ORD 7-8 SNL G-802** Semitrlr, low bed: Wrecker, 12-ton, 4-wheel, M269, M270, M270A1 Dec 55

**ORD 5 SNL H-3** Straps, leather findings, piece leather Jan 56

**ORD 6 SNL J-7 Sec 1, C1** Tool Set, organiz maint (2nd ech), set No. 1, com (41-T-3538-850) Dec 55

**ORD 6 SNL J-16 Sec 36** Tool Sets, fld, dep maint for landing veh, track, Mk4, LVT (4) (SNL G-209); landing veh, track (armor), Mk4, LVT (A) (4) and Mk5, LVT, (A) (5) (SNL G-214) Nov 55

**ORD 6 SNL J-16 Sec 51** Tool sets, fld, dep maint for: Transmission, Allison Series CD-500 Nov 55

**ORD 6 SNL J-16 Sec 54** Tool sets, fld, dep maint for: 5-ton trk: M39, M40, M40C, M61, M63, M63C, M139, M139C, (M139E1), M41, M54, M54E1, M55, M51, M52, M52C, M246, M64, M62, M62E1, M62E2, M62E3, M62E4, M62E5 Nov 55

**ORD 6 SNL J-16 Sec 56** Tool sets, fld, dep maint for: trk, gun-lifting, hvy, M249, M250, Nov 55

**ORD 7-8 SNL J-543** Fixture, 'scope set (7573980) Nov 55

**ORD 3 SNL K-2** Solder, metalliz, braz and weld materials; gases, related items Dec 55

**ORD 7-8 SNL L-1** Small arms targets, target equip Nov 55

**SM 9-5-1330, C1** Stock list current issue items—ammo grenades, hand and rifle, related components—FSC 1330 Jan 56

**SM 9-1-5965** Stock list all items, except rep parts—FSC group 59—elec components class 5965 head-sets, microphones, speakers Dec 55

**SM 9-2-1210, 20, 30, 40, 50, 60, 90** Stock list all items, price list—FSC group 12 fire contr equip—class 1210—fire contr directors; 1220—fire contr comput sights, devices; 1230—fire contr sys complete; 1240—optis sight, range equip; 1250—fire contrl stabil mechs; 1260—fire contr designate indicate equip; 1290—misc fire contr equip Dec 55

**SM 9-2-5210, 80** Stock list all items, price list—FSC group 52—measuring tools—class 5210—measuring tools, craftsmen's; 5280—sets, kits, outfits of measuring tools Dec 55

**SM 9-2-5985** Stock list all items, price list—FSC group 59—elec electron equip components—class 5985—antennae, waveguides, related equip Dec 55

**SM 9-5-1210, 20, 30, 40** Stock list current issue items—FSC group 12—fire contr equip—class 1210—fire contr directors; 1220—fire contr comput sights, devices; class 1230—fire contr sys, complete; 1240—optic sight and range equip Dec 55

**SM 9-5-1290** Stock list current issue items—FSC group 12—fire control equip—class 1290—misc fire control equip Dec 55

## TECHNICAL MANUALS

**TM 9-252, C2** 40-mm auto guns M1, M1A1; 40-mm AA gun crrges M2A1, M2A3; 40-mm gun mt M3 Jan 56

**TM 9-575, C2** Aux sight, fire contr equip Jan 56

**TM 9-1910 C1 (T011A-1-34)** Mil explos Feb 56

**TM 9-1990, C2** Small arms ammo Feb 56

**TM 9-2024, C2** 20-mm auto gun M24A1 Jan 56

**TM 9-2113** Cal. .50 spotting rifle M8 (T46E2) Jan 56

**TM 9-2800-1, C2 (TO 36-1-2)** Mil vehs (Ord Corps Resp) Jan 56

## ORDNANCE MWO's

**D48-W20** 75-mm AA gun mt T69: Modify swivel shaft, right yoke assy on front bogie assy **F** Dec 55

**D65-W5** Trk-mtd 762-mm rkt launcher XM289: Provide a stronger cap, chain assy for squib cable recept **F** Jan 56

**D65-W6** Trk-mtd 762-mm rkt launcher XM289: Enlarg top crrge front inspect hole, provide higher oil level hole in top crrge differential housing cover **F** Jan 56

**F197-W6** Scope mt M21A1: Alter bracket to facilitate installation of mt **D** Dec 55

**F210-W2, C2** Binoc M3, M8: Provide washer in obj assy to prevent acci rotation of parts **F** Dec 55

**F349-W1** Fuze setter M26: Install stop pawl of improved design **F** Dec 55

**G1-W74** M41 and M41A1 tanks, M42 twin 40-mm: Instal modified left fuel tank filler tube, right fuel tank filler cap **F** Dec 55

**G1-W77** M75 (T18E1), M47, M48, M46, M46A1, M41, M41A1: Replace carburetor fulcrum screw on Contin eng AOS-895-3, AO-895-4, AV-1790-5B, AV-1790-7 **D** Jan 56

**G162-W7** 13-ton H-S trtr M5A4: Provide drainage for shell stowage wells **F** Dec 55

**G162-W8** 13-ton H-S trtr M5A4: Prevent tipping of shell stowage boxes from side of vehicle **F** Dec 55

**G262-W23** M47 Tank: Replace commander's override dump valve relay **O** Jan 56

**G262-W26** M47 Tank: To prevent carbon monox from personnel heater exhaust from entering crew compart **F** Dec 55

**G268-W20** Heavy gun lifting trks M249, M250: Instal pioneer tools, small arms stowage brkts **F** Dec 55

**G268-W21** Trks M249, M250: Reinforce of hoist cyl travel hooks **F** Dec 55

**G268-W22** Trks M249, M250: Remove transm contr valve body downshift blocker **F** Jan 56

**G268-W23** Trks M249: Provide drain holes in cross member of spare wheel carrier rack **O** Dec 55

**G281-W1** Recovery vehicle M74: Instal prop shaft cover **F** Dec 55

**G744-W7, C1** Dump trk M251: Modify hyd hoist pump, contr relay **F** Dec 55

**G749-W32** 2½-ton trks M135, M211, M215, M217, M220, M222, M221: Reinforce veh frame, fuel tank supports **F** Dec 55

**G749-W33** 2½-ton trks M135, M211, M215, M217, M220, M222, M221: Rewire volt-meter circuit **F** Jan 56

**G758-W3** ¼-ton util trk M38A1: Instal 105-mm rifle M27A1 w/105-mm rifle mt M75A1 or 106-mm rifle M40 (T170E1) w/106-mm rifle mt M79 **F** Dec 55

**G786-W3** 37-pass bus (Integral Type) (GMC mod PGA-3301): Fabricate, instal baggage compart step support **F** Jan 56

**J6-W2, C1** Single end box wrench 7950489: Instal steel blocks **F** Jan 56

**J6-W4** Track adjust wrench 8366417: Change size opening **F** Dec 55

**J656-W1** Trk mtd FCS test shop XM264, XM355—modify No. 8 test adapter used in test predic contr relay panel **F** Jan 56

**J656-W2** Trk mtd FCS test shop XM264, XM355: Provide method of monitoring voltages **F** Jan 56

## SUPPLY BULLETINS

**SB 9-130** Auth comm-type vehs in category III and AAA (mobile) TOE units, auth tact veh substitutes **F** Feb 56

## TECHNICAL BULLETINS

**TB 9-7605-1/1** Amphib carrier M76: Maint, adjust Continental mod AO-268-3A eng for high alti **F** Feb 56

**TB ORD 215 C5 (TO 38-1-2)** Ord eng run-in test proced **D** Feb 56

**TB ORD 597-36** Impact-type rev pneu wrench (Master Pneu Tool mod M970) (40-W-1094): Rebld stds **D** Jan 56

**TM ORD 597-37** Single-ph 60-cy 110-v shell bearing connect-rod boring mach w/fixtures, accys (Tobin Arp Mfg Co, mod SB W/SB-A attach) (4910-473-6363): Rebld stds **D** Jan 56

**TB ORD 597-38** Upright drill mach (High Speed Hammer Co. mod R-53) (40-P-1163): Rebld stds **D** Jan 56

**TB ORD 597-39** Paint spray gun (The Binks Mfg Co mod 18) (4940-261-8413, 4940-261-8414, 4940-261-8415): Rebld stds **D** Jan 56

**TB ORD 611-4** Motor veh clutch rebldr (Monmouth Products mod AS-100-M) (4910-262-0391): Op instr **O** Dec 55

**TB ORD 623 (TO 11W3-1-9)** Packag of small arms matl w/volatile corrosion inhib (VCI) **O, F, D,** Jan 56

## LUBE ORDERS

**LO 9-U710** Tire spreader pneu, floor mtg, full cir, 12 to 28-in bead diam range, 2 to 13-in cross sect range (Branick Mfg Co mod F), Nov 55

**LO 9-5042-1A** Radar set AN/MPQ-25: Electronic components, Jan 56

**LO 9-5042-3** Radar set AN/MPQ-25: Ant group, radar tracking, Jan 56

**LO 9-5052** Air servicer, trk mtd, 5-t, 6x6, XM350, Jan 56

**LO 9-5056-2** Truck, propellant svng, 5-t, XM-268E1; tank, aniline, premetered, XM2, Jan 56

**LO 9-5060** Launcher, guided miss, XM27, Jan 56

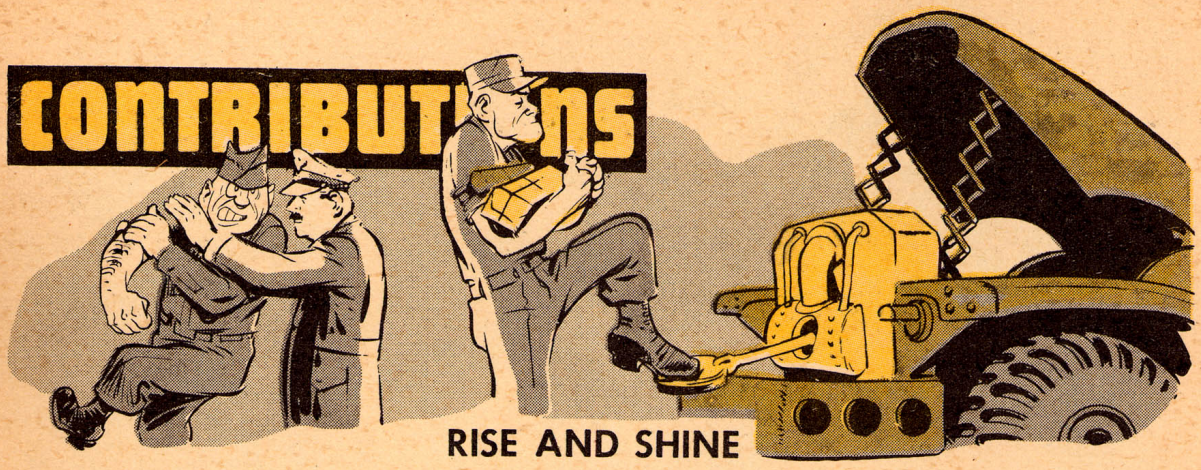
**LO 9-5074** Miss test sta, trk mtd AN/MSM-4: Van body, miss test set, Jan 56

**LO 9-7204** 105-mm howitzer, SP T98E1, Jan 56

## FIRING TABLES

**FT 105-H-4, C3** Howitzer, 105-mm, M2A1, M2A2, M4, M4A1 firing shell, HE, M1; shell, chem M60; shell, chem M360; shell, smoke, BE, M84; shell, smoke, colored, BE, M84; shell, illum, M314; shell, HEAT-T, M67; shell, HEP, T81E28, Oct 55

**NOTE—On TB's, SB's and MWO's:**
**O—Organizational Maintenance**
**F—Field Maintenance**
**D—Depot Maintenance**




## RISE AND SHINE

Dear Editor,

Unless you're using your bottom front teeth to lift your truck's hood, you can't have many fingernails left for scratching. It takes the very tips of your digits to flip the lids on the G742 and G749 2½-ton trucks. Which means your nails get clipped after the first few daily maintenance run-downs.

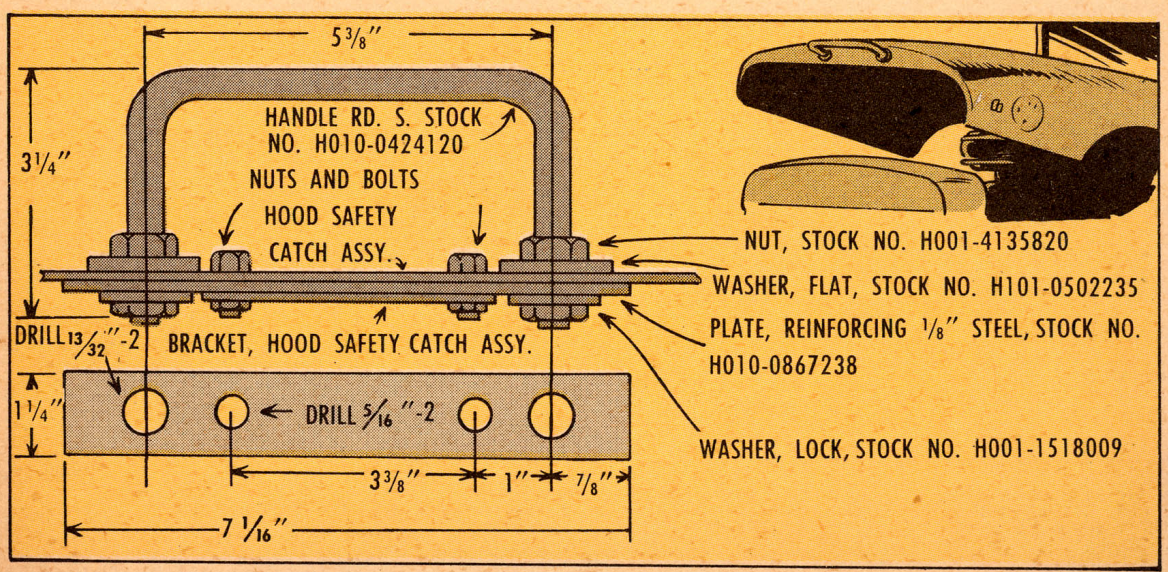
With the safety catch claiming the use of one hand, you've got only one left to raise the hood. If you use that on a side hood fastener, you'll only throw the engine's hat sideways. So you gotta pick it up at the center.

To raise the roof and not get clipped, your answer is a handy handle. Just take a piece of ⅜-in round stock, bend, thread and install the fabricated handle with ⅜ 16 UNC-2B nuts and a reinforcing plate as below. Now screw 'em all together with the handle on the outside front center of the hood. Add some paint and you've got it made.

With a handle, you'll keep your pawtips nice and shiny—and get a rise out of it.

**Capt John J. Kohler**
**Wolters Air Force Base**

*(Ed Note—Looks like a good idea for the M37 trucks also. There's an MWO on its way covering this.)*



## COAT YOUR CAN

Dear Editor,

Wanna hear how we licked the corroded gas can problem?

Well...it seems we've got to store our empty 5-gallon cans with their caps off so the remaining gas'll evaporate. This gets rid of the gas OK, but it lets moist air get into the cans and form a powdery corrosion on the inside. Then when you use those corroded cans, the rust gets right into your gas tank and clogs up the fuel filter elements.

We tried storing those empties with their caps on. This still didn't do any good because moisture seeps in through the cap's vent hole.

The idea we finally hit on was to coat the insides of the cans with a preservative oil that'd stop the corrosion from forming. The best stuff we found for this job was the same oil we use for our weapons—Oil, lubricating, preservative special, QMC Stock No. 14-0-2834-10.

We did our coating job like this:

First we poured a gallon of preservative oil into a can; capped it, then sloshed around the oil until the insides of the can were completely covered with preservative. Now we poured this oil into another can and repeated the process. We coated all our cans in this way. When we finished, we set the coated cans upside down with their caps off so most of the excess oil'd drain off.

This way we kept corrosion out of those empty gas cans for many, many moons.

**Sgt E. B. G.**
**APO 648**

*(Ed Note—Good show—you don't have to worry if some of that oil preservative gets in your gas tank. It won't do any harm to the engine. Also if you can't get oil preservative (special), you can use Oil, lubricating (PL-Med) QMC Stock No. 14-0-2833-120 or Oil, lubricating (light) QMC Stock No. 14-0-1339-15. Coat about 25 cans with one gallon—then start over with clean oil for the next batch of cans.)*

# Connie Rodd's BRIEFS

## Duster IR

You got an M42 twin-40 with an infrared periscope in your OVM—but none of the stuff (turntable, power pack, cables, etc.) necessary to use it? Just sit tight and hold your fire for a spell, friend. There's an MWO to fit out early-production Dusters with all the needed IR equipment. Watch for it.

## Enough rope?

Ever turned in your medium tank with a busted air cleaner cable (wire rope) and found you couldn't get the cable replaced without having the whole cleaner unit replaced? No more. Your support unit can now get the rope alone. It's: Cable, cup retaining, Ord Stock No. G254-8713441.

## Nuts, pal...!

Case you're involved with a CD500 or CD850 transmission tear-down and wondering what's what with the pal nut situation—forget 'em. They're no longer considered necessary and don't have to be replaced in the field.

## Batten it down

Having trouble with your M-series truck's instrument mounting plates flapping in the breeze for want of a lost or rusted-out fastener? This fastener has now been made an authorized item, and you can get it by using FSN 2510-753-9255. Your Ord 7 revisions will show that its name is Receptacle, Q2 fastener, instrument cluster to instrument panel.

## Fender rod

You body men and motor pool welders will be glad to know that there's a new rod in supply now, Rod, welding, gas, steel (MIL-R-5632 Class 1), $^{1}/_{16}$-in by 36-in length, FSN 3432-F-000001.

This rod's a better fender rod than the mild steel stuff you've been using, and away ahead of pants hangers or fence wire. Also, being a $^{1}/_{16}$-in rod, it's easier to use on thin sheet metal. Best get some.

## Gunk must go

Always take an extra gander at the valve in the gas-cylinder lock-screw on your .30-cal M1 rifle when you're cleaning it. Any gunk (oil, sand, etc.) left under the valve will cause it to stay open and you'll get a short recoil...result, trouble.

**TECHNICAL MANUAL**
**SUPPLY MANUAL**
**LUBE ORDER**

THAT SM LISTS THE PUBLICATIONS YOU'RE AUTHORIZED. REQUISITION THE ONES YOUR UNIT NEEDS ON **DA FORM 17** FROM YOUR PUBLICATIONS UNIT